

BERLIN.

ECVP 2017

THE 40TH.

Scientific programme

40th European Conference on Visual Perception
27–31 August 2017 | Berlin | Germany



OVERALL SCHEDULE

TIME	SUNDAY, 27.			MONDAY, 28.			TUESDAY, 29.			WEDNESDAY, 30.			THURSDAY, 31.					
8:00-9:00	Registration			Registration			Registration			Registration			Registration					
9:00-11:00	Auditorium	Hall A	Hall C	Auditorium	Hall A	Hall C	Auditorium	Hall A	Hall C	Auditorium	Hall A	Hall C	Auditorium	Hall A	Hall C			
	Symposium Sequential Dependencies	Talk session Perception & action	Symposium Schizophrenia	Talk session Attention	Symposium Material & shape perception	Symposium Multisensory influences on vision	Talk session Eye movement Basic	Symposium Visual cogn. & Multivariate analysis	Symposium Sensorimotor dysfunction	Talk session Visual search	Symposium Binocular vision in a 3D world	Symposium Seeing cells	Talk session Visual search	Symposium Binocular vision in a 3D world	Symposium Seeing cells			
11:00-12:30	Coffee break			Coffee break			Coffee break			Coffee break			Coffee break					
12:30-13:30	Poster Session			Poster Session			Poster Session			Poster Session			Poster Session					
	Lunch Break			Lunch Break			Lunch Break			Lunch Break			Lunch Break					
13:30-15:30	Pre-conference tutorials			Talk session Memory & Serial dependencies			Symposium Arousal			Controversy Two visual systems			Controversy Crowding			Controversy Thinking about Seeing		
	Symposium Yabus 50			Talk session Colour vision	Talk session Perceptual organization, & grouping	Symposium Arousal	Controversy Two visual systems	Controversy Crowding	Symposium Perceptual estimation	Talk session 3D, depth, & binocular vision	Controversy Thinking about Seeing	Symposium Global image structure	Talk session Face recognition	Controversy Thinking about Seeing	Symposium Global image structure	Talk session Face recognition		
15:30-16:00	Coffee break			Coffee break			Coffee break			Coffee break			Coffee break					
16:00-17:00	Registration			Talk session Object recogn.			Talk session Spatial vision			Talk session Natural scenes			Talk session Bistability					
17:00-18:00	Registration			Poster Session			Poster Session			Poster Session			Closing					
18:00-18:30	Opening			Transfer to Party Venue (Shuttle buses depart btw/ 18:30 and 19:00)			Transfer to Party Venue (Shuttle buses depart btw/ 18:30 and 19:00)			Rank Prize Lecture Shin'ya Nishida			Closing					
18:30-20:00	Perception lecture Nava Rubin			Keynote Dialogue Brian Scholl vs Merav Ahissar			Conference Party Dinner & Night of Light (open end)			Rank Prize Lecture Shin'ya Nishida			Closing					
20:00-	Reception (ends 21:30)			Conference Party Dinner & Night of Light (open end)			Conference Party Dinner & Night of Light (open end)			Rank Prize Lecture Shin'ya Nishida			Closing					

ECVP 2017 IN BERLIN: A WELCOME AND A MANUAL

Welcome to Berlin, everyone. We are glad to see that you have made your way to the 40th European Conference on Visual Perception. With more than one thousand fellow vision scientists coming to the Hauptstadt, we are all part of the biggest ECVP yet.

We are thankful for your large number of submissions that allowed us to put together an amazing program. In three parallel tracks and across four days, we will witness over 200 talks in 12 symposia and 24 talk sessions, and more than 750 posters in 7 poster sessions. We are confident that the program is going to offer something for everyone every moment of the conference.

Over the next few days you might notice a few innovations that we are excited about:

Keynote Dialogue. Two views one vision. In addition to the established Perception and Rank Prize lectures (this year: Nava Rubin and Shin'ya Nishida, respectively), we created a new format — the Keynote Dialogue. In a single session, two speakers will present their opposing views on a big question in vision science. We have invited Brian Scholl and Merav Ahissar to discuss the question “Does cognition penetrate perception?”

Controversy Symposia. Controversy symposia openly focus on alternative views on a current research question. They consist of talks that take different stances on the issue, and a panel discussion. The goal of this format is to bring together researchers from different sides of the fence, engage them in discussion, and identify steps that may lead to a resolution of the controversy.

Randomized poster sessions. At some meetings, you may have had the experience that presenting a poster can be frustrating if all other posters on one's own topic are presented at the same time. This often results in a lack of feedback from researchers in the same field (which are presenting their own poster) and reduces your chances to see the posters you are most interested in. In putting together the poster session at this year's ECVP, therefore, we have pursued a new strategy to minimize this conflict and randomly assigned each poster to a session before sorting posters by topic within each session.

Party Dinner. Instead of the traditional ECVP banquet dinner, this year's ECVP will do justice to its host city and celebrate the 40th ECVP in a big party dinner, taking place at one of Berlin's many cultural centers — the Kulturbrauerei in Prenzlauer Berg. In contrast to previous years' Banquet dinners, the party is free to all ECVP attendees, as we were able to cover the costs without increasing the conference fee.

Kids welcome. At ECVP 2017, we are offering complimentary childcare for parents who would like to (or need to) bring their children to the conference. Perhaps this has the side effect of putting one or two 7-year olds on the right path to become ECVP organizers 30 years on. :-)

Like every ECVP, we organized this conference as a bunch of enthusiasts, and as every ECVP is different, future events might put an emphasis on other things. Please feel encouraged to give us feedback; we will send out feedback requests by e-mail after the conference.

We are very happy to have you here — enjoy the conference!

The organizing team



Guido Hesselmann
Charité Berlin



Marianne Maertens
TU Berlin



Florian Ostendorf
Charité Berlin



Martin Rolfs
HU Berlin



Niko Busch
Münster University



Philipp Sterzer
Charité Berlin

ECVP THE 40TH: A GRUSSWORT BY LOTHAR SPILLMANN

The European Conference on Visual Perception (ECVP) was founded almost four decades ago in Marburg, Germany, through the collaborative efforts of Richard (Dick) Cavonius, John Mollon, Ingo Rentschler, and myself. Following WWII, Germany was largely isolated and scientifically in need of outreach. ECVP was conceived as a way to penetrate and break down the national borders. Ever since, the meeting has been a catalyst for peaceful collaboration among European nations. The organizers are proud to host this year's ECVP in Berlin after previous meetings in Germany, including Bad Nauheim (1986), Tübingen (1995), Regensburg (2009), and Bremen (2013).

In addition to promoting visual science, ECVP has always fostered friendship and strengthened the bonds among participants. Numerous international collaborations between vision laboratories in Europe and around the globe have been inspired and facilitated by the meeting. The book by Spillmann and Werner (Eds.) on *Visual Perception: The Neurophysiological Foundations* (Academic Press 1990) was a direct outgrowth of newly found relationships among international scientific communities. An article by Cavonius in *Perception* 28, published in 1999, illustrates the revived border-crossing trends in European visual science due to ECVP.

A personal view by myself, summarizing the first 25 years of ECVP, was published in *Perception* 32, 2003. It shows how the conference topics have changed and how the meeting has drifted away from the original concept of having talks on all sensory modalities in psychophysics and neurophysiology to topics such as face perception, visual attention, learning, and computational vision science (among others). It also has migrated from small university towns to larger venues. Many of us oldtimers no longer attend, but – thankfully – a whole new generation is making the meeting their own with a good number of keynote speakers invited from European universities.

Despite these changes, ECVP has remained singular among vision conferences. Since its inception, it has played host to many thousands of vision researchers mostly from Europe, but also from Asia, Australia and North America. It has done so without a governing body, a professional society, or a membership. This arrangement has proven successful for 40 meetings and has now been followed by the Asia Conference on Visual Perception (APCV). It is to be hoped that ECVP retains its character as a forum for free and joyful scientific exchange.

I thank the present and past organizers of ECVP, who have invested their hard work, enthusiasm, dedication, and compassion to keep the meeting lively, inspiring, and thriving.

Much success, and in this and future meetings, take the time to get to know the host countries, their people, and cultures. This, too, is what ECVP is about.

Lothar Spillmann
Freiburg

Acknowledgements

We would like to thank Charité – Universitätsmedizin Berlin, the official host of this year's ECVP, for making this event possible. In particular, we benefited strongly from the continuous support by Dr. Thomas Gazlig (Head of Business Division of Research). We gratefully appreciate the support from the Charité administration in accounting and legal affairs. ECVP was generously supported by the Deutsche Forschungsgemeinschaft (DFG, grant # OS 507/1-1).



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GENERAL INFORMATION

Registration and conference desk – opening hours

Sunday, 27 August, 17.00 – 21.00 h
Monday, 28 August – Thursday, 31 August, 08.00 – 18.00 h

Instructions for talks and posters

Helpers with coloured name badges and bright conference t-shirts will be around to help you.

TALKS

Option A – bring a USB (our preference): Bring your presentation as PowerPoint or PDF file on a USB Flash Drive and deliver it to the person in charge inside the room during the break 15 min before the session starts (preferably earlier) so there is enough time to transfer and test it.

On our presentation PCs the following software will be available:

Microsoft Office Prof. Plus 2016, Mozilla Firefox, Adobe Acrobat Pro, E-Chalk, VLC-Player

Option B – bring your own laptop: Should you need your own notebook, please let us know asap! Make sure that you bring your own adapter. The time for switching notebooks will be deducted from your speaking time!

POSTERS

Posters will be on display for 0.5 days. For your poster's day and time, please check the programme schedule. The poster boards are numbered, and poster are on display at the ground floor, the mezzanine floor, and the upper floor.

In order to foster vivid discussions in front of the posters, the poster social will be held without any other parallel events.

The poster unit size is A0 portrait (1189 mm height by 841 mm width). Materials for mounting your posters will be available. Please do not use any other tapes or glues, and especially no two-sided tapes.

Printing a poster on-site in Berlin: e.g. at digital-printing-hall | COPY-REPRO-CENTER | address: Heinz Wagenhaus, Habelschwerdter Allee 37, 14195 Berlin, Opening hours: Mo-Fr 8 – 20 h; Sat. 9 – 14 h. Poster print costs approx. € 35 (A0 format).

Internet / Wireless LAN access

Access to the internet will be available (and in addition eduroam).

Name badges

Your name badge is your official conference identification document, so delegates are asked to wear the name badges at all time while at the conference site. If you lose your badge, please see the conference desk.

Lost & found

For lost and found personal belongings, please contact the conference desk.

Breaks & meals

Coffee breaks are served Monday – Thursday twice a day between 11:00–11:30 h and 15:30–16:00 h.

Lunch is not included and may be purchased on-site in tents in front of the building or in the canteens close to the venue (Lunch breaks Monday – Thursday: 12:30 – 13:30 h).

Child care

Please contact conference desk for information.

SCIENTIFIC EVENTS

Sunday, 27 August

OPENING 18:00–18:30 Auditorium

18:30–20:00 h Perception Lecture | Auditorium

Bi-stability, Neural Competition, and Probabilistic Representation

Nava Rubín | Universitat Pompeu Fabra, Barcelona, Spain

Sponsor: Sage Publishers



Monday, 28 August

THE KEYNOTE DIALOGUE 18:30–20:00 h | Auditorium

Two views, one vision: Does cognition penetrate perception?

Merav Ahissar | Hebrew University of Jerusalem, Israel

Brian Scholl | Yale University, New Haven, USA

Chair: Kate Storrs | University of Cambridge, UK

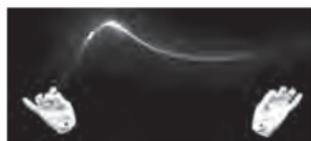


Tuesday, 29 August

NIGHT OF LIGHT from 20:00 h | Kulturbrauerei

Part of the ECVP 2017 Conference Party (please see next page)

A traditional ECVP event that you shouldn't miss. Formerly known as 'Illusoriamente' (Alghero), 'Show time' (Bremen), 'Illusion night' (Belgrade), 'Illusions parade' (Liverpool), and 'The Illusion's Night' (Barcelona), it consists of a variety of installations that challenge our ideas of how we perceive reality.



- Janos Geier: Dynamic Afterimages
- Jessica Herrington: Abstract Digital
- Jan Koenderink: Paradoxical Pseudo-Parallax
- Christine Veras: Silhouette Zoetrope
- Marius Raab & CCC: The clear-cut water drop: A visual illusion to perceive top-down saccadic fill-in
- Richard Schweitzer, Tamara Watson, & Martin Rolfs: Persistence of Vision

Wednesday, 30 August

18:30–20:00 Rank Prize Lecture | Auditorium

Visual material perception

Shin'ya Nishida

NTT Communication Science Labs, Japan

Sponsor: The Rank foundation



Thursday, 31 August

12:30–13:30 h Business meeting | Auditorium

Open to everyone! For details, please see page 60.

(grab your lunch already during the Poster Session)

17:00–17:30 Closing | Auditorium

SOCIAL EVENTS

Sunday, 27 August

ICEBREAKER 19:30 h | Conference venue Henry Ford Building, ground floor (included in fee)

Join us for snacks & drinks, great music, and meet old and new friends jet-lagged colleagues very happy to see you (again)!

Tuesday, 29 August

CONFERENCE PARTY 20:00 h | entrance from 19:30 h | Kulturbrauerei (included in fee)

Don't miss a great evening at the Kulturbrauerei, the place to be in a Berlin summer night! Enjoy industrial club atmosphere, a buffet-style dinner and drinks. As the sun sets, your chill-out mood will get a boost by fancy music put on by the house DJ himself.

Address:

KulturBrauerei

Schönhauser Allee 36

10435 Berlin – Prenzlauer Berg

Please use entrance

Sredzkistraße 1

Our buildings are “Palais” (entrance), “Kesselhaus” and “Maschinenhaus”.

Bus Shuttle (one way, for free) provided! Busses start from conference venue between 18:30 – 19:00 h (driving time: 45–60 min)

Public Transport (approx. 60 min from the conference venue):

Underground (U-Bahn): U2 stop Eberswalder Straße or stop Senefelderplatz

Suburban Train (S-Bahn): Ringbahn S42, S4 and S8

Tram M12, M1, M10 (stop Eberswalder Straße)

Night bus: N52

Taxis: at entrance Sredzkistraße

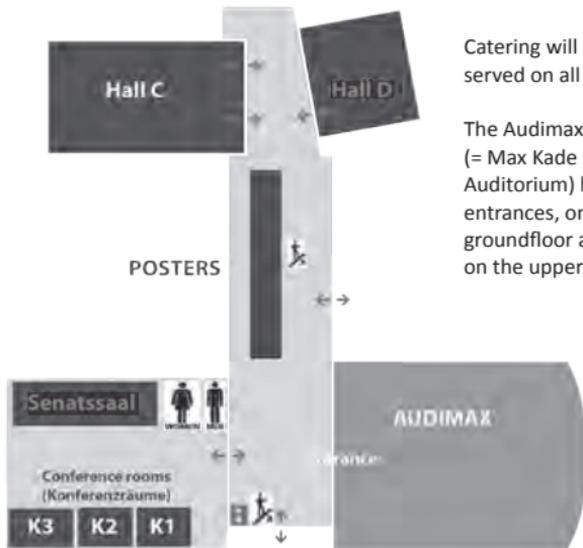
KESSELHAUS
maschinenhaus



Von Kesselhaus – Eigenes Werk, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=27576505>

FLOOR PLAN

Upper floor (Obergeschoss) Henry Ford Building



Catering will be served on all floors.

The Audimax (= Max Kade Auditorium) has two entrances, one on the groundfloor and one on the upper floor.

Mezzanine (Zwischengeschoss) Henry Ford Building



Groundfloor (Erdgeschoss) Henry Ford Building



Entrance Garystraße 35

MONDAY AT A GLANCE

09:00–11:00 h

Auditorium: Symposium 'Sequential dependencies'

Hall A: Talk session 'Perception & action'

Hall C: Symposium 'Schizophrenia'

11:00–11:30 h Coffee break

11:00–12:30 h

Poster Session

12:30–13:30 h Lunch break

13:30–15:30 h

Auditorium: Symposium 'Yarbus 50'

Hall A: Talk session 'Colour vision'

Hall C: Talk session 'Perceptual organization, segmentation, & grouping'

15:30–16:00 h Coffee break

16:00–17:00 h

Auditorium: Talks session 'Computational'

Hall A: Talk session 'Lightness'

Hall C: Talk session 'Vision & art'

17:00–18:30 h

Poster Session

18:30–20:00 h

Auditorium: **THE KEYNOTE DIALOGUE**

Two views, one vision: Does cognition penetrate perception?

Merav Ahissar | Hebrew University of Jerusalem, Israel

Brian Scholl | Yale University, New Haven, USA

Chair: Kate Storrs | University of Cambridge, UK

MONDAY, 28 AUGUST

TALKS 9:00–11:00

Symposium, Auditorium

Unraveling sequential dependencies in perceptual choice

Organizers: Tobias H. Donner & Floris de Lange

Observers' judgments about their environment do not only depend on the current sensory input, but are influenced by previous choices and stimuli. Such history biases are pervasive even when they are maladaptive. This symposium will highlight recent progress in unravelling the underlying mechanisms across species and sensory modalities.

- 9:00 **Introduction**
Donner TH, de Lange, FP
- 9:05 **Asymmetric adaptability of choice history biases in human perceptual decisions**
Gardner, J
- 9:25 **Uncertainty-dependent history bias through accumulation of internal decision variables**
Donner, TH
- 9:45 **Rats show flexible history-dependent choice biases in a 2AFC auditory task**
de la Rocha, J
- 10:05 **Can serial dependencies in choices and neural activity explain choice probabilities?**
Nienborg, H
- 10:25 **Serial dependence in perceptual decision-making**
de Lange, F
- 10:45 **General discussion**

Talk Session, Lecture Hall A

Perception & action

Chair: Andrei Gorea

- 9:00 **Looking into the future when grasping**
Voudouris, D, Smeets, JBJ, Fiehler, K, Brenner, E
- 9:15 **Awareness of action outcome and action intention**
Gorea, A, Granjon, L, Sagi, D
- 9:30 **Optimal decision making in a rapid reaching task**
Hesse, C, Kangur, K, Hunt, AR
- 9:45 **The effects of predictability and higher task-control upon perception and action**
Perquin, MN, Bompas, A
- 10:00 **Eyes and fingers are already on the goal: Grasp-specific anticipatory remapping of peripersonal space**
Belardinelli, A, Lohmann, J, Butz, MV
- 10:15 **How early can we predict the outcome of a throwing action?**
Maselli, A, Dhawan, A, Cesqui, B, Russo, M, Lacquaniti, F, d'Avella, A
- 10:30 **Looking, moving, touching: The role of exploration in multimodal perception**
Sciutti, A, Lupi, E, Sandini, G
- 10:45 **Who's up for some heavy lifting? How three-dimensional shape and material properties determine precision grip grasp locations**
Klein, LK, Maiello, G, Paulun, VC, Fleming, RW

MONDAY, 28 AUGUST

Symposium, Lecture Hall C

Visual perception disturbances in schizophrenia: Psychological, neurobiological and phenomenological perspectives

Organizer: Peter J. Uhlhaas

Research in schizophrenia has emphasized deficits in “higher” cognitive functions. In contrast, general consensus has viewed dysfunctions in basic perceptual processes to be relatively unimportant. This symposium brings together a group of investigators who will examine visuo-perceptual disturbances in schizophrenia, ranging from psychophysical to neurobiological as well as phenomenological approaches.

- 9:00 **Psychophysical bases of anomalous perceptual experiences**
Szabolcs, K
- 9:20 **Sense of time continuity: Patients with schizophrenia show the way**
Giersch, A, Franck, N, Martin, B, Lalanne, L
- 9:40 **Sensitivity and specificity of eye movement abnormalities in major adult psychiatric disorders**
Benson, PJ, Beedie, SA, Rujescu, D, Nouzová, E, Kuriakose J, Walker, N, Suhanyiova, L, Shand, A, Kulkarni, M, Shephard, E, Giegling, I, Bheemaraddi, S, St Clair, D, Simonsen, A, Mors, O, Lyu, H, Zhao, J
- 10:00 **A predictive coding account of perceptual abnormalities in schizophrenia**
Schmack, K
- 10:20 **Neural oscillations in visual cortices in schizophrenia indicated a disturbance in excitation/inhibition parameters**
Uhlhaas, P
- 10:40 **General discussion**

POSTERS 11:00–12:30

3D vision, depth, binocular vision, rivalry

- 1 **Pupil dilation during perception of the Necker cube reflects the viewing-from-above bias**
Sato, F, Laeng, B, Nakauchi, S, Minami, T
- 2 **Direct comparison of eye patch and virtual occlusion during computer-aided treatment of amblyopia in children**
Rychkova, S, Gracheva, M, Sandimirov, R, Bolshakov, A
- 3 **Brain stimulation of early visual cortex improves depth perception**
Schaeffner, LF, Welchman, A
- 4 **Peripheral depth estimation of disparity-defined targets**
Alberti, C, Bex, P
- 5 **Increment and decrement adjustment and the course of contrast-modulated binocular rivalry**
Skerswetat, J, Chima, A
- 6 **Continuous flash suppression: The “dorsal bias” hypothesis**
Hesselmann, G, Darcy, N, Sterzer, P

Aging & development

- 7 **The change of age in cognitive and anticipated properties of the moving object**
Takeichi, M, Arai, T, Fujita, K

Applied vision

- 8 **Short wavelength light increases pupil constriction and visual acuity at equiluminance**
Borra, T, Lucassen, M, Schlangen, L, Souman, J

MONDAY, 28 AUGUST

- 9 **Measuring visual processing speed using a time accuracy function analysis and its relation to driving performance in younger adults**
Mackenzie, A, Guest, D, Howard, C, Crundall, D

Attention & visual search

- 10 **Feature representation in a dimension switch task: How anterior prefrontal areas modulate implicit visual attention**
Horr, NK, Ullsperger, M, Pollmann, S
- 11 **Is shift of spatial attention limited to the effective oculomotor range: A study with presentation in extreme periphery**
Casteau, S, Smith, DT
- 12 **Allocation of visual attention in deaf and hearing signers**
Stoll, C, Pascalis, O, Palluel-Germain, R, Dye, M
- 13 **Using distractor information benefits visual search: Evidence for negative search templates**
Güldener, L, Olivers, CN, Pollmann, S, Reeder, R
- 14 **Are faces subject to IOR? Evidence from dynamic displays**
Swalwell, R, Atkinson, A, Smith, DT
- 15 **A cross-linguistic perspective on attention capture: Is there an influence of the participants' native language?**
Goller, F, Ansoerge, U
- 16 **Eliminating facilitation and inhibition of return in the Posner task**
Liu, X, Stoet, G, Lages, M
- 17 **Eccentricity effect of inhibition of return: Asymmetry between the nasal and temporal visual fields**
Bao, Y, Chen, L, Pöppel, E
- 18 **Searching for a unique visual rhythm: Tone may help, but phase is crucial!**
Bao, Y, Li, Y, Zhao, C, Pöppel, E
- 19 **Attentional capture effects by stereoscopic depth information**
Plewan, T, Rinckenauer, G
- 20 **Study on demand for parking information system by drivers' visual identity**
Kuo, C, Lo, S
- 21 **On the influence of task demands and novelty on visual attention of competing stimuli**
Hernández-García, A, Gameiro, RR, König, P
- 22 **Gaze-contingent stimulus removal leads to subsequent changes in attentional allocation**
Ludwig, K, Schmid, D, Schenk, T
- 23 **The price of saccades**
Melnik, A, Schüler, F, Rothkopf, C, König, P
- 24 **Adaptive adjustment of posture for the performance of a visual search task**
Foldesi, E, Kim, J, Lim, Y, Kim, P, Kim, N

Colour vision

- 25 **Human affectiveness on color arrangements in geometrical figures**
Asano, A, Yamada, M, Asano, CM, Okajima, K, Kawasumi, M
- 26 **Temporal color induction between transient stimuli**
Yokota, H, Naito, S
- 27 **Spectral comparison of color fidelity metrics CIE CRI and IES TM-30-15**
Reyes, CDR, Quintero, JM

MONDAY, 28 AUGUST

- 28 **Strong post-transduction colour and luminance interactions with gradients**
Garcia-Suarez, L, Bloj, M
- 29 **Asymmetric single-pulse detection and double-pulse resolution of color opponent pathways**
Shi, L

Computational vision

- 30 **Applying machine learning to gloss perception**
Prokott, KE, Fleming, RW
- 31 **Training restricted Boltzmann machines to generate human-like eye movements**
Krasovskaya, S, MacInnes, WJ
- 32 **Recurrent convolutional neural networks suppress occluders and enhance targets in occluded object recognition**
Spoerer, C, Kriegeskorte, N
- 33 **What limits peripheral sensitivity?**
Pelli, D, Yiltiz, H
- 34 **Distinguishing between evidence accumulation and temporal probability summation in perceptual decision making**
Malhotra, G, Gilchrist, I, Ludwig, C
- 35 **On the cortical mapping function**
Strasburger, H

Eye movements

- 36 **Microsaccade and pursuit inhibition during smooth pursuit**
Ziv, I, Bonneh, Y
- 37 **Investigating eye movements as an exploration/exploitation dilemma using a new gaze-contingent viewing task**
Schepers, J, Ehinger, B, König, P
- 38 **Variation in sensitivity during visual fixation**
Scholes, C, McGraw, PV, Roach, NW
- 39 **The burnout syndrome in figure skaters: The eye tracking study**
Klimova, O, Kovalev, A
- 40 **Masking of random-walk motion by flicker, and its role in the allocation of motion in the on-line jitter illusion**
Park, AS, Bedggood, P, Metha, A, Anderson, A
- 41 **Eye movements during viewing of natural scenes: Prior object-knowledge restructures salience**
Pędziwiatr, M, von dem Hagen, E, Teufel, C

Face perception

- 42 **Perception of hyper-realistic face masks**
Sanders, JG, Ueda, Y, Minemoto, K, Noyes, E, Yoshikawa, S, Jenkins, R
- 43 **Voluntary smiles make faces objectively more feminine: Comparing computational shape analysis and observer perceptions**
Shingler, P, Ward, R
- 44 **The role of holistic, configural, and featural information in the recognition of individual emotional expressions**
Keough, E, Favelle, S, Palermo, R, Ewing, L
- 45 **Attractiveness judgment of facial parts: Attractive facial parts are looked longer**
Saegusa, C, Watanabe, K

MONDAY, 28 AUGUST

- 46 **Cultural differences in naturalistic face scanning**
Haensel, JX, Smith, TJ, Senju, A
- 47 **Flashed face distortion effect in pictorial faces**
Chen, I, Chen, M
- 48 **Induction of facial feature usage in naïve individuals reveals causal factors of face recognition ability**
Faghel-Soubeyrand, S, Gosselin, F

Lightness, brightness, & contrast

- 49 **Contrast discrimination near threshold at different spatial frequencies**
Paramei, G, Tiippana, K, Strasburger, H
- 50 **A neural evidence for the dissociation between mechanisms underlying detection and identification tasks**
Pamir, Z, Ürgen, BM, Er, G, Boyaci, H
- 51 **Are low spatial frequencies (or high contrasts) the trigger of threat detection?**
Mermillod, M, Kauffmann, L, Roux-Sibilon, A, Bret, A, Palluel-Germain, R, Peyrin, C
- 52 **Human classification of depicted materials in paintings**
van Zuijlen, M, Wijntjes, M, Pont, S

Memory & cognition

- 53 **The content of visual working memory alters processing of visual input prior to conscious access: Evidence from pupillometry**
Gayet, S, Paffen, C, Guggenmos, M, Sterzer, P, van der Stigchel, S
- 54 **Decoding control of sensory working memory**
Christophel, TB, Yan, C, Stopak, L, Hetzer, S, Haynes, J
- 55 **Effects of expectation on gaze fixation and pupil dilation during evaluative decision-making**
Ounjai, K, Shunsuke, K, Lauwereyns, J
- 56 **Effect of stimulus variance on neural representation of perceptual mean**
Eo, KY, James, O, Park, C, Kim, YJ
- 57 **Timed action naming in Russian language**
Marchenko, O

Motion

- 58 **The perception of apparent motion derived by subjective contours**
Yoshizawa, T, Fujiwara, S
- 59 **Subjective motion in one direction produced by objective motion in direction of left and right under semi-dark room conditions**
Yanaka, K, Suzuki, M, Yamanouchi, T
- 60 **Explicit and implicit perceptual knowledge of free fall**
Vicovaro, M, Battaglini, L, Noventa, S
- 61 **Visual short-term memory for sequential coherent motion: A rTMS investigation**
Pavan, A, Ghin, F, Campana, G
- 62 **The global motion perception depends on the spatial and temporal changes of the stimulus**
Kassaliete, E, Truksa, R, Ozolina, A, Marcinkevica, B

Multisensory perception

- 63 **Influence of different types of predictive signals on haptic exploration of soft material**
Zöllner, A, Lezkan, A, Paulun, VC, Fleming, RW, Drewing, K

MONDAY, 28 AUGUST

- 64 **Statistic-based speech segmentation operates on an integrated audio-visual percept rather than on the auditory and visual modality taken independently**
Mersad, K, Doré-Mazars, K, Elisei, F, Bailly, G, Nazzi, T
- 65 **Limb or arm? A local body movement elicits a sense of agency but not a sense of ownership**
Tajima, D, Yoshida, T
- 66 **Does learning an audiovisual association affect within-modal sensitivities?**
Xue, S, Chang, DHF
- 67 **Visual and tactile perception of roughness in fractal surfaces**
Viengkham, C, Spehar, B
- 68 **Visual and somatic adaptations to sloped floor**
Higashiyama, A, Yamazaki, T
- 69 **Time attracts space perception in young children**
Amadeo, MB, Campus, C, Gori, M

Natural images & scene perception

- 70 **Eye-movement control with central and peripheral spatial-frequency filtering during object search and scene memorization**
Cajar, A, Engbert, R, Laubrock, J
- 71 **Changeable texture image generation with anisotropic surface asperity and illumination features**
Bando, T, Ishii, M

Object recognition

- 72 **Modeling visual brain responses by image and word similarity judgments: Combining fMRI, MEG and deep neural networks**
Jozwik, KM, Cichy, RM
- 73 **Animate vs. inanimate selectivity in the ventral stream: Effects of spatial frequency, visual shape, and semantic category**
He, C, Cheung, O
- 74 **Event-related potential effects of object repetition depend on spatial attention and view familiarity**
Wakui, E, Thoma, V, Gosling, A
- 75 **Semantic meaning informs high-level object perception**
Rahman, RA, Suess, F
- 76 **Tilt detection influenced by both shape properties and task demands**
Ueda, T, Shiina, K, Yasuda, T

Perception & action

- 77 **Cortical plasticity in FHONDA – a new inherited visual system disorder**
Ahmadi, K, Fracasso, A, van Dijk, J, Kruijt, C, van Genderen, M, Dumoulin, SO, Hoffmann, MB
- 78 **A model that predicts where we grasp 3D objects**
Maiello, G, Klein, LK, Paulun, VC, Fleming, RW
- 79 **Quiet eye and motor performance: The longer the better?**
Klostermann, A, Hossner, E
- 80 **The essential role of optical flow in the peripheral visual field for stable quiet standing: Evidence from the use of a head-mounted display**
Horiuchi, K, Ishihara, M, Imanaka, K
- 81 **Neuro-dynamical model for the coupling of action perception and execution**
Ardestani, MH, Giese, M

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- 82 **Concurrent increases in spatial stability and temporal neural dynamics during perceptual decision making**
Kloosterman, N, Garrett, D, Fahrenfort, JJ
- 83 **Variability in visuo-motor selection: Determinism and stochasticity**
Bompas, A
- 84 **Fluctuations in sensory evidence dissociate choice accuracy and confidence**
Wilming, N, Sigman, M, Meyniel, F, Dehaene, S, Donner, TH
- 85 **An eye-tracking investigation of the object handle orientation effect: Does handle-directed attention vary as a function of spatial compatibility between handle and response?**
Saccone, E, Thomas, N
- 86 **Schizophrenia and affordance perception**
Kim, J, Foldesi, E, Kim, N
- 87 **Knowing where is different from knowing what. Distinct response time profiles and accuracy effects for target location, orientation, and color probability**
Jabar, S, Filipowicz, A, Anderson, B
- 88 **Gender differences in interpersonal distances during interactions with avatars**
Popova, T, Saveleva, O, Menshikova, GY, Tikhomandritskaya, OA

Perceptual learning

- 89 **The influence of global configuration on contextual cueing learning**
Ovchinnikova, I, Moroshkina, N
- 90 **Exploiting multisensory modalities for mathematics learning based on multimodal technology and serious games**
Volta, E, Albornò, P, Piana, S, Volpe, G

Perceptual organisation, segmentation, & grouping

- 91 **A generic mechanism for perceptual organisation in the parietal cortex**
Grassi, P, Zaretskaya, N, Bartels, A
- 92 **Determining visual shape features for novel object classes**
Morgenstern, Y, Schmidt, F, Fleming, R
- 93 **Visual representations can be bimodal**
Chetverikov, A, Kristjánsson, Á

Research methods

- 94 **Modeling a nonlinear functional hierarchy of unconscious processing: A directed graph framework**
Root, N, Ramachandran, V

Spatial vision

- 95 **Crowding impairs subitizing**
Yildirim, ZF, Coates, DR, Sayim, B
- 96 **Mislocalization of visual stimuli – exploring the attentional repulsion effect**
Baumeler, D, Born, S
- 97 **Comparative judgements of facial emotions are affected by semantic congruity not by SNARC**
Fantoni, C, Baldassi, G, Prpic, V, Murgia, M, Rigutti, S, Agostini, T
- 98 **Apparent motion may shrink, but visual pattern masking enlarges the perceived distance between alternating stimuli**
Born, S
- 99 **3D contextual cueing maintained to depth but not planar variation**
Zang, X, Shi, Z, Müller, HJ, Conci, M

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Time perception & temporal processing

- 100 **Time error with long ISI**
Nakatani, K
- 101 **Conditioned fear lengthens perceived temporal duration without visual awareness**
Zhang, X, Yuan, X, Wang, Y, Jiang, Y
- 102 **Time duration changes with implied motion**
Actis-Grosso, R, Vedovato, C, Carlini, A
- 103 **When more is more: Multisensory stimulation enhances performance improvement by temporal expectations**
Michels, LE, Ball, F, Noesselt, T
- 104 **Evoked potentials to visual apparent motion after auditory and visual time interval adaptation**
Kaya, U, Yildirim, ZF, Kafaligonul, H
- 105 **The evaluation of naturalistic food images in self-paced versus time-controlled exposure conditions**
Wolf, A, Blechert, J, Ounjai, K, Lauwereyns, J
- 106 **Intentional binding of visual effects**
Ruess, M, Thomaschke, R, Kiesel, A
- 107 **Timing an action and being confident about it**
Jovanovic, L, Mamassian, P, López-Moliner, J
- 108 **Asymmetric temporal order tuning of the Ebbinghaus size illusion**
Takao, S, Watanabe, K

Vision & art

- 109 **Aesthetic judgment of high and low-ranking Western and Eastern buildings: The influence of architectural system and physical properties of the stimuli**
Kojima, H, Hashimoto, S, Vannucci, M
- 110 **Colour associations of the Russian people**
Griber, YA, Jung, I

TALKS 13:30–15:30

Symposium, Auditorium

Yarbus-50: Eye movements and the peripheral retina: Yarbus's ideas and current data

Organizers: Galina Rozhkova & Nicholas J. Wade

50 years after *Eye movements and vision*, Yarbus's ideas on eye movements and the special role of the extreme retinal periphery are examined. Among many challenging issues are relationships between this "blind retina" and the cone-enriched retina at ora serrata, high photopic motion sensitivity and color perception throughout the retina.

- 13:30 **The impact of Yarbus' work on active vision**
Tatler, BW
- 13:50 **Eye movements and peripheral vision before Yarbus**
Wade, NJ
- 14:10 **Is there a single functional channel at the edge of the retina?**
Mollon, JD
- 14:30 **Theoretical analysis and practical implications of human photoreceptor densities to the far periphery**
Tyler, CW

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- 14:50 **Far peripheral vision and pattern recognition**
Strasburger, H
- 15:10 **Mysteries of the blind zone at the extreme periphery of the human retina**
Rozhkova, G, Nikolaev, P, Belokopytov, A, Gracheva, M
-

Talk Session, Lecture Hall A

Colour vision

Chair: *Christoph Witzel*

- 13:30 **Seeing colour where there is none: Decoding the implied colour of grey-scale objects using MEG**
Teichmann, L, Grootswagers, T, Carlson, T, Rich, A
- 13:45 **Memory effects, central tendency, serial dependency or just task bias? An investigation using illumination hue discrimination**
Aston, S, Olkkonen, M, Hurlbert, A
- 14:00 **The McCollough effect is enhanced in anomalous trichromats: Nonlinear contrast coding and post-receptoral compensation**
MacLeod, D, Robinson, A, Bosten, J
- 14:15 **The relative contribution of color and material to object identification**
Radonjić, A, Cottaris, N, Brainard, D
- 14:30 **Which image characteristics yield striking individual differences in perceived colour?**
Witzel, C, Poggemann, S, Jakob, A, Gegenfurtner, KR, Toscani, M
- 14:45 **#thedress reveals general "chromotypes" in colour constancy**
Weiss, D, Gegenfurtner, KR, Witzel, C
- 15:00 **Unique hues are not mediated by two perceptually opponent mechanisms**
Wuerger, S, Chauhan, T
- 15:15 **The colours of natural scenes are perceived as beautiful**
Nascimento, SMC, Albers, AM, Gegenfurtner, KR
-

Talk Session, Lecture Hall C

Perceptual organisation, segmentation, & grouping

Chair: *Udo Ernst*

- 13:30 **On the nature of correlation perception in scatterplots**
Rensink, R
- 13:45 **Differential predictive processing for "good" and "bad" Gestalts in the early visual cortex**
Costa, TL, Orsten-Hooge, K, Rêgo, G, Wagemans, J, Pomerantz, J, Boggio, P
- 14:00 **Early spatio-temporal processing shapes approximate numerical representation.**
Fornaciai, M, Park, J
- 14:15 **Humans treat unreliable filled-in percepts as more real than veridical ones**
Ehinger, BV, Häusser, K, Ossandón, J, König, P
- 14:30 **Crowding and binding: Not all feature-dimensions behave equally**
Yashar, A, Wu, X, Chen, J, Carrasco, M

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- 14:45 **Size constancy affects the perception and parietal neural representation of object size**
Harvey, B, Kristensen, S, Fracasso, A, Dumoulin, SO, Almeida, J
- 15:00 **Filling-in and contour interpolation in Kanizsa configurations**
Chen, S, Glasauer, S, Müller, HJ, Conci, M
- 15:15 **Contour integration in multiple feature dimensions explained in a recurrent network model**
Grzymisch, A, Schiffer, A, Meinhardt, G, Persike, M, Ernst, U

TALKS 16:00–17:00

Talk Session, Auditorium

Computational vision & modeling

Chair: Sharon Gilad-Gutnick

- 16:00 **Confidence in visual discrimination decisions is based on evidence and stimulus visibility**
Rausch, M, Zehetleitner, M
- 16:15 **Hidden layers in perceptual learning**
Weinshall, D, Cohen, G
- 16:30 **Are human neurometric signals consistent with sequential sampling models of speeded choice?**
Kohl, C, Spieser, L, Forster, B, Bestmann, S, Yarrow, K
- 16:45 **Potential downside of high initial visual acuity**
Gilad-Gutnick, S, Ehrenberg, E, Vogelsang, L, Sinha, P

Talk Session, Lecture Hall A

Lightness, brightness, & contrast

Chair: Minjung Kim

- 16:00 **Perceptual continua in material depictions**
Wijntjes, M
- 16:15 **Classification images for understanding lightness perception**
Kim, M, Gold, J, Murray, R
- 16:30 **The role of race in perception of face lightness: Modeling the joint contributions of race and luminance for lightness perception of upright and inverted faces**
Nichiporuk, N, Knoblauch, K, Abbatecola, C, Shevell, S
- 16:45 **Impact of ADHD treatment on retinal background noise: A neuronal correlate**
Bubl, E, Bach, M

Talk Session, Lecture Hall C

Vision & art

Chair: David Simmons

- 16:00 **The moon illusion revisited: New insights by employing the moon diary app in the field**
Carbon, CC

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- 16:15 **Ecological valence theory and football club colour preferences**
Simmons, D, MacGregor, C
- 16:30 **The window shapes of building facades strongly modulate the amplitude EEG signal in parietal and occipital lobes**
Rad, PN, Shahroudi, AA, Ajami, S, Shabani, H, Lashgari, R
- 16:45 **Sensitivity and aesthetic preference in dynamic naturalistic stimuli varying in their spatiotemporal amplitude spectra**
Spehar, B, Clifford, CWG, Isherwood, Z

POSTERS 17:00–18:30

3D Vision, depth, binocular vision, rivalry

- 1 **Visual working memory load reduces the perceptual orientation bias of the Necker cube**
Intaite, M, Castelo-Branco, M, Heinrich, SP, Bach, M, Kornmeier, J
- 2 **Investigating binocular oculomotor learning in adults by means of stereoscopic stimulation and eye-tracking**
Hudák, M, Geier, J
- 3 **Mapping of interocular filter suppression**
Chima, A, Formankiewicz, MA, Waugh, SJ
- 4 **Bayesian analysis of the influence of size-relationship-priors on distance estimation**
Neupärtl, N, Hoppe, D, Rothkopf, CA
- 5 **Temporal dynamics of mutually inhibiting pyramidal cells: Underlying mechanism for bi-stable perception**
Kogo, N, Kern, F, Nowotny, T, van Ee, R, van Wezel, R, Aihara, T

Aging & development

- 6 **A factorial approach in aging research**
Shaqiri, A, Pilz, K, Kunchulia, M, Clarke, A, Herzog, MH
- 7 **Preterm birth influences the development of visuomotor skills**
Ferreira, A, Ribeiro, F, Graça, AM, Sousa, R
- 8 **Study of the elderly visual aging in Taiwan on demand for Taiwan High Speed Rail service**
Kuo, C
- 9 **Age-related influences of distractor processing on visual working memory content**
Tagliabue, C, Cristoforetti, G, Brignani, D, Mazza, V
- 10 **The effects of perceptual uncertainty on global motion and global form detection in developmental dyslexia**
Johnston, R, Pitchford, N, Roach, NW, Ledgeway, T

Applied vision

- 11 **Information acquisition as a biomarker for vision impairment**
Costela, F, Kajtezovic, S, Saunders, D, Rose, D, Woods, R
- 12 **The time course of preference for curvature**
Munar, E, Corradi, GB, Vañó, J, Rosselló, J

Attention & visual search

- 13 **The time course of target template activation in visual search**
Grubert, A, Eimer, M

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- 14 **Behavioral rhythms of attentional sampling**
Dugué, L, Busch, N, Senoussi, M
- 15 **Response of the multiple-demand network during simple perceptual discriminations**
Wen, T, Mitchell, D, Duncan, J
- 16 **Unusualness and threat?: The effect of context on an eyewitness' attention to weapons**
Takeno, M, Kitagami, S
- 17 **Differential processing in ignore-color and ignore-location cue effects in visual search**
Kawashima, T, Matsumoto, E
- 18 **Early facilitation and perceptual merging: The role of alpha band power and neuronal dynamics in exogenous orienting**
Malevich, T, Nikulin, V, Blagovechtchenski, E, Iscan, Z, MacInnes, WJ
- 19 **Selection across a bilateral visual field: Simultaneous vs sequential selection mechanisms**
MacKenzie, C, Goodbourn, P, Holcombe, A, Aphthorp, D
- 20 **Effect of object category prediction on individuation**
Ürgen, BM, Boyacı, H
- 21 **A potential benefit of eye blinks? Boosted performance in an RSVP task after blinks (and blanks)**
Ang, JW, Maus, G
- 22 **Attentional capture by task-irrelevant angry faces outside the focus of attention**
Burra, N, Robinson, J, Poitrine, L, Barras, C, Kerzel, D
- 23 **Faster access to awareness for stimuli associated with negative social experience**
Sahraie, A, Visokomogilski, A, Golubickis, M, Macrae, N
- 24 **Looking for the glossy object: Visual search asymmetries in material perception**
Hansmann-Roth, S, Mamassian, P
- 25 **Not a shift of attention: Buffering and binding of visual stimuli**
Ludowici, C, Holcombe, A
- 26 **Asymmetrical attentional selection modulated by emotion: A right-side bias for selecting neutral Chinese characters, but no bias for selecting negative Chinese characters**
Lo, S, Wang, Y

Colour vision

- 27 **After-effects from implied colours of natural objects**
Lee, R, Mather, G
- 28 **The role of one-shot learning in #TheDress**
Drissi-Daoudi, L, Doerig, A, Parkosadze, K, Kunchulia, M, Herzog, MH
- 29 **Is luminance a key factor for static and flashed chromatic assimilation?**
Cerdeña-Company, X, Otazu, X
- 30 **Luminance modulates color detection thresholds in natural scenes**
Breuil, C, Barthelmé, S, Guyader, N
- 31 **Regional sensitivity for Shape Discrimination (SD) in colour vision: Concentric and eccentric presentations of Radial Frequency (RF) patterns**
Żołubak, A, Garcia-Suarez, L
- 32 **Functional effects and interaction of voluntary and involuntary phantom vision on conscious perception**
Chang, S, Pearson, J

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- 33 **Colors of the sublunar domain**
Koenderink, J, van Doorn, A
- 34 **Low-level determinants of stimulus salience: Distinct contributions of colour and luminance on PCN waves**
Hardman, A, Tollner, T, Martinovic, J

Computational vision

- 35 **Investigating links between artificial neural networks and human visual perception**
Korotaev, K, MacInnes, WJ

Eye movements

- 36 **Eye-movement parameters reflect visual complexity and aesthetic appraisal of car fronts: Replication with a Russian sample**
Kovalev, A, Laskov, G, Paramei, G
- 37 **The effect of different brightness conditions on visually and memory guided saccades**
Felßberg, A, Dombrowe, I
- 38 **Dissociation between microsaccadic and perceptual timing**
Kamal, ASM, Scholes, C, McGraw, PV, Roach, NW
- 39 **Testing the English language proficiency level of Russian students using eye-tracking technology**
Oshchepkova, M, Menshikova, GY
- 40 **Localizing hemianopic visual field defects based on natural viewing behavior while watching movie clips**
Gestefeld, B, Grillini, A, Marsman, J, Cornelissen, F
- 41 **Optimizing clustering-based smooth pursuit detection**
Startsev, M, Lee, AT, Dorr, M
- 42 **Switch from ambient to focal processing mode explains the dynamics of free viewing eye movements**
Ito, J, Yamane, Y, Suzuki, M, Maldonado, P, Fujita, I, Tamura, H, Grün, S
- 43 **Numerosity estimation benefits from trans-saccadic information integration**
Hübner, C, Schütz, AC
- 44 **Exploring the eye-movement differences between correct and incorrect answerers of spatial ability scale items**
Chen, W, Liu, Y, Wen, ML

Face perception

- 45 **Perception of the old/young lady ambiguous figure is affected by own-age social biases**
Nicholls, M, Churches, O, Loetscher, T
- 46 **Familiarity enhances recognition of multiple facial identities from a single facial image**
Bülthoff, I, Zhao, M
- 47 **Perceptual correlates of others' direction of gaze in anterior superior temporal sulcus**
Seymour, K, Palmer, C, Otsuka, Y, Clifford, CWG
- 48 **Mapping the earlier featural and holistic face processing of bad and good face recognizers**
Turano, MT, Marzi, T, Viggiano, MP
- 49 **Ekman's expression research revisited: Theoretically and empirically checking the current standards of emotion expression research**
Brütting, U, Carbon, CC

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- 50 **Eye movements to faces presented in the periphery**
Brueggemann, S, Saunders, J
- 51 **Effects of the shape of the cheek color blush on the perceived size of the face**
Nakato, E, Shirai, S
- 52 **The value of being real: Exploring how the reward value of genuine and posed emotional faces varies across development**
Mares, I, Dawel, A, Richards, A, Smith, ML, Ewing, L
- 53 **Judgment of facial expression is modulated by the emotional congruency of task-irrelevant surrounded faces**
Matsumoto, E
- 54 **The contextual effect of colour preference on the perception of emotionally ambiguous faces**
Gulhan, D, Alashan, D, Ayhan, I
- 55 **How the sequence of fixation times reveals the decoding strategy of emotional faces**
Yang, Y, Amorim, M, Brunet-Gouet, E
- 56 **The effect of facial expression on contrast sensitivity**
Webb, A, Hibbard, PB
- 57 **How does social impression transformation created on avatar faces affect face recognition performance and eye movement?**
Yamada, R, Hada, M, Sakuta, Y, Akamatsu, S
- 58 **How a face becomes familiar? Episodic facial prototypes and representations are generated across the life-span**
Schneider, TM, Carbon, CC
- 59 **The Visual Representation of Facial Expression Revealed by Face View Adaptation**
Song, M

Lightness, brightness, & contrast

- 60 **Classical stereoscopic luster versus counter-modulation – evidence for different underlying mechanisms**
Wendt, G, Faul, F
- 61 **High perceptual contrast caused by luminance gradients cannot explain simultaneous contrast enhancement**
Kobayashi, Y, Matsushita, S, Morikawa, K
- 62 **Why do LCD screens appear to glow?**
Patel, K, Palatnic, L, Murray, R

Memory & cognition

- 63 **Influence of theta tACS on working memory performance**
Pavlov, YG, Dorogina, OI
- 64 **Visual working memory benefits from luminance-driven perceptual mechanisms in healthy controls, but not in patients with schizophrenia**
Kosilo, M, Martinovic, J, Laxhman, N, Lisshammar, JE, Barbur, J, Haenschel, C
- 65 **What can asymmetric confidence judgments tell us about visual working memory?**
Kong, G, Fougny, D
- 66 **Continuous and categorical representations during color working memory**
Yan, C, Christophel, TB, Haynes, J
- 67 **Effects of cognitive ageing on landmark detection and recognition**
Grzeschik, R, Dalton, RC, Innes, A, Wiener, J
- 68 **Pupil-linked arousal is driven by decision uncertainty and alters serial choice bias**
Urai, AE, Braun, A, Donner, TH

- 69 **Electrophysiological correlates of solving non-creative tasks by highly creative individuals**
Shiryaev, DI, Pavlov, YG

Motion

- 70 **Differential patterns of activity in V1 and MT for surround-suppression and surround-summation**
Er, G, Pamir, Z, Türközer, HB, Boyaci, H
- 71 **Decision variables in visual gravity judgements: Evidence from simulating the decision process**
Jörges, B, López-Moliner, J
- 72 **Increasing the realism of motion dazzle studies: Effects of flocking behaviour and speed oddity tasks**
Hughes, A, Fletcher, L, Adib, Z, Duncan, L, Godwin, E, Clarke, AD
- 73 **Perceptual validation of the variational coupled Gaussian process dynamical model**
Velychko, D, Knopp, B, Endres, D

Multisensory perception

- 74 **Visuotactile sensory experience shared with others'**
Teramoto, W
- 75 **Crossmodal effects of dynamic visual information on beverage perception**
Okajima, K, Hojo, S
- 76 **Faces and voices in the brain: Is there a modality-general person-identity representation?**
Tsantani, M, Kriegeskorte, N, McGettigan, C, Garrido, L
- 77 **Microstructure of V4 and visual word form area (VWFA) in synesthetes**
Weiss, F, Otto, A, Beer, A, Greenlee, MW, Volberg, G
- 78 **Distinct patterns of deviation and reference frames in visuo-haptic and haptic-visual slant perception**
Liu, J, Ando, H
- 79 **Does corresponding visuospatial information facilitate learning to discriminate auditory pitches?**
Wahn, B, Gschossmann, LJ, Diallo, D, Ghai, S, Effenberg, AO, König, P

Object recognition

- 80 **Category learning by cortex-basal ganglia interactions: A neuro-computational approach**
Villagrasa, F, Baladron, J, Vitay, J, Schroll, H, Hamker, FH

Perception & action

- 81 **tACS modulates oscillatory frequencies relevant for detecting speed of change**
Castellano, M, Ibanez-Soria, D, Acedo, J, Kroupi, E, Campolo, M, Martinez, X, Soria-Frisch, A, Valls-Sole, J, Verma, A, Ruffini, G
- 82 **The interaction of visual flow and perceptual load in the control of locomotion speed**
Ludwig, C, Alexander, N, Mundkur, I, Redmill, D
- 83 **The effects of luminance and color on vection**
Shiozaki, K, Seya, Y, Shinoda, H
- 84 **Observational learning of surgical skills on the daVinci system**
Buckingham, G, Vine, S, Wilson, M, McGrath, J
- 85 **Dissociation between perception and action among tennis players revealed by using induced motion**
Seya, Y, Shinoda, H

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- 86 **Eye-hand span at sight reading of the musical text by pianists**
Tereshchenko, L, Boyko, L, Ivanchenko, D, Zadneprovskaya, G, Latanov, A
- 87 **Priming of color and categorical information is independent from prime visibility in crowding**
Sommerfeld, A, Mattler, U
- 88 **It is more than just a decisional bias: High-level action adaptation aftereffects affect perception**
de la Rosa, S, Bülthoff, H

Perceptual learning

- 89 **Cholinergic enhancement of short-term patching in healthy adults**
Sheynin, Y, Chamoun, M, Baldwin, A, Vaucher, E, Hess, RF
- 90 **Prism adaptation as perceptual learning**
Fahle, M, Pochopien, K, Spang, K

Perceptual organisation, segmentation, & grouping

- 97 **Figure-ground organisation and the neural response to visual symmetry: Symmetry has to be in the figure not just in the image.**
Bertamini, M, Wright, D, Makin, A
- 92 **Connecting visual objects reduces both perceived numerosity and density for sparse but not dense patterns**
Pomè, A, Anobile, G, Cicchini, GM, Burr, DC
- 93 **Crowding asymmetries explained by a model of image segmentation**
Bornet, A, Doerig, A, Herzog, MH, Francis, G
- 94 **Local vs. global processing in early vision: The role of local features in fast discrimination of natural images**
Del Viva, MM, Montagnini, A
- 95 **Serial dependencies in perceiving body size**
Bell, J, Alexi, J, Palermo, R, Burr, DC, Cleary, D, Dommissie, K, Kloth, N
- 96 **Orientation discrimination and orientation averaging in individuals high on the sensory processing sensitivity scale**
Moors, P, Weyn, S, De Coster, S, Bijttebier, P, Wagemans, J

Research methods

- 97 **Controlling saccade rate in electrophysiological studies through experimental designs and pre-screening of participants**
Tal, N, Yuval-Greenberg, S
- 98 **Russian normative data for 552 ecological pictures from the Bank of Standardized Stimuli (BOSS)**
Sopov, M, Miroshnik, K, Shindrikov, R, Starodubtsev, A
- 99 **Creating peripheral shape metamers**
Sayim, B, Melnik, N, Yildirim, ZF, Coates, DR
- 100 **Comparing an established and a new method for evaluating noise visibility**
Kohl, L, Fröhlich, J, Seybold, T

Spatial vision

- 101 **Electrophysiological correlates of visual backward masking in first-episode psychosis**
Roinishvili, M, Favrod, O, da Cruz, JNR, Shaqiri, A, Oqruashvili, M, Gamkrelidze, T, Chkonia, E, Brand, A, Herzog, MH

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- 102 **Why psychopaths do not stand back: Understanding personal space violations**
Welsch, R, Freiherr von Castell, C, Hecht, H
- 103 **Visuospatial abilities in children with weakness in grammar understanding**
Kiselev, S
- 104 **How many factors are there in vision?**
Cretenoud, AF, Karimpur, H, Grzeczkowski, L, Francis, G, Hamburger, K, Herzog, MH

Time perception & temporal processing

- 105 **Automatic detection of visual duration differences**
Durant, S, Sulykos, I, Czigler, I
- 106 **How motor signals shape the estimation of time**
Zimmermann, E
- 107 **Temporal attention improves visual feature integration**
Rolke, B, Hein, E, Seibold, VC
- 108 **Short-term adaptation effects on perceived duration in Random Dot Kinematograms (RDks) and drifting gratings**
Ayhan, I, Gulhan, D
- 109 **The Ebbinghaus illusion in time: Temporal context affects visual and auditory duration discrimination**
Lages, M, Kounov, P, Klein, F

Vision & art

- 110 **Exploring network connectivity during visual aesthetic experiences**
Isik, I, Vessel, E

KEYNOTE DIALOGUE 18:30–20:00

Auditorium

The Keynote Dialogue:

Two views, one vision: Does cognition penetrate perception?

Speakers:

Merav Ahissar | Hebrew University of Jerusalem, Israel &

Brian Scholl | Yale University, New Haven, USA

Chair: Kate Storrs

TUESDAY AT A GLANCE

09:00–11:00 h

Auditorium: Talk session 'Attention'

Hall A: Symposium 'Material & shape perception'

Hall C: Symposium 'Multisensory influences on vision'

11:00–11:30 h Coffee break

11:00–12:30 h

Poster Session

12:30–13:30 h Lunch break

13:30–15:30 h

Auditorium: Talk session 'Memory & serial dependencies'

Hall A: Symposium 'Arousal'

Hall C: Controversy 'Two visual systems'

15:30–16:00 h Coffee break

16:00–17:00 h

Auditorium: Talks session 'Object recognition'

Hall A: Talk session 'Spatial vision'

Hall C: Talk session 'Multisensory'

17:00–18:30 h

Poster Session

18:30–19:00 h

Bus transfer from the conference venue Henry Ford Building to Conference Party at Kulturbrauerei

19:30 h Entrance

20:00 h Start Conference Party

Please see page 6 for more information.

TUESDAY, 29 AUGUST

TALKS 9:00–11:00

Talk Session, Auditorium

Attention

Chair: Shira Tkacz-Domb

- 9:00 **Current and future goals warp object category space in opposite directions**
Loon, A, Fahrenfort, JJ, Olivers, CNL
- 9:15 **Attending to motion-in-depth modulates fMRI responses in striate and extrastriate visual areas**
Kaestner, M, Maloney, RT, Bloj, M, Harris, JM, Wade, AR
- 9:30 **Visual processing capacity in multiple sclerosis: New implications for clinical assessment**
Kluckow, S, Bublak, P
- 9:45 **Out with the new, in with the old: Attracting attention to locations without new events**
Taylor, E, Hilchey, M, Pratt, J
- 10:00 **The interacting influence of alpha amplitude and instantaneous frequency on visual perception**
Nelli, S, Itthipuripat, S, Serences, J
- 10:15 **The size of the attentional window when measured by the pupillary response to light**
Tkacz-Domb, S, Yeshurun, Y
- 10:30 **The influence of relative context on transient attention shifts vs sustained dwelling and their effects on awareness**
Martin, A, Becker, S
- 10:45 **The typical advantage of object-based attention reflects reduced spatial cost**
Rashal, E, Yeshurun, Y

Symposium, Lecture Hall A

Beyond translation: Image deformation and dynamics in material and shape perception

Organizers: Dicle Dovencioğlu, Katja Doerschner, & Ohad Ben-Shahar

The aim of this symposium is to bring together a cross-section of current research focused on understanding how the visual system deals with non-rigid deformations of objects and materials and to identify the main challenges facing the field going forward.

- 9:00 **Shape from specular flow**
Dövcencioglu, D, Ben-Shahar, O, Doerschner, K
- 9:20 **Jelly and goop: Visual perception of non-rigid materials**
Fleming, RW, Paulun, V, Van Assen, JJ, Schmidt, F
- 9:40 **Shatter and splatter: The contribution of optics, shape, and motion to the perception of non-rigid, breaking soft and hard materials**
Schmid, AC, Doerschner, K
- 10:00 **Seeing materials from movements: Motion and shape cues in perception of cloth in dynamic scenes**
Xiao, B, Bi, W
- 10:20 **Transparent surface formation from non-rigid image deformation**
Kawabe, T, Nishida, S
- 10:40 **Shape deformations are ubiquitous in images: How do we tell that objects are deforming?**
Zaidi, Q, Koch, E

TUESDAY, 29 AUGUST

Symposium, Lecture Hall C

Multisensory influences on vision: Neural mechanisms underlying cross-modal interactions in the visual system

Organizer: Viola Störmer

Visual perception is constantly influenced by events from other sensory modalities. Thus, for a complete understanding of the visual system it is critical to take these multisensory interactions into account. This symposium focuses on the neural mechanisms underlying auditory influences on visual processing.

- 9:00 **Salient sounds activate visual cortex**
Störmer, V
- 9:20 **Sound-induced activation of the visual cortex influences visual perception**
Hillyard, S
- 9:40 **The multisensory scaffolding for perception across the lifespan**
Murray, M
- 10:00 **On the interaction of temporal expectation and multisensory interplay**
Noesselt, T
- 10:20 **Visual modulation of auditory processing during speech**
Brang, D
- 10:40 **Aberrant neural oscillations reflect altered multisensory processing in schizophrenia**
Senkowski, D

POSTERS 11:00–12:30

3D vision, depth, binocular vision, rivalry

- 1 **Neural oscillations during breaking continuous flash suppression**
Del Rio, M, Tahedl, M, Greenlee, MW, Volberg, G
- 2 **Abnormal visual plasticity in obese subjects**
Lunghi, C, Daniele, G, Binda, P, Dardano, A, Annamaria, C, Santini, F, Ceccarini, G, Giusti, L, Prato, SD, Morrone, MC
- 3 **Classification of EEG responses reveals dynamics of disparity judgements in parietal and visual cortices**
Michael, E, Welchman, A
- 4 **Convolutional sparse coding in binocular vision systems predicts tuning for point- and higher-order disparities**
Ecke, G
- 5 **Stereoscopic depth perception is differentially affected by adaptation to binocularly correlated versus binocularly anti-correlated noise**
Kingdom, F, May, K, Hibbard, PB
- 6 **Tilt illusion during binocular rivalry from invisible patterns**
Sun, YH, Jung, WH
- 7 **A different view on the Necker cube – differences in multistable perception dynamics between Asperger and non-Asperger observers**
Kornmeier, J, Wörner, R, Riedel, A, Tebartz van Elst, L
- 8 **Topology-disturbing objects: A new class of impossible objects**
Sugihara, K

Aging & development

- 9 **Investigating the influence of infant touchscreen use on screen-based attention control**
Portugal, AM, Smith, TJ, Cheung, C, Bedford, R

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- 10 **Spatial navigation and geometrical skills in children**
Cuturi, LF, Cappagli, G, Gori, M

Applied vision

- 11 **Effects of relative target position on ipsilateral and contralateral manual operations in head-mounted virtual reality**
Batmaz, AU, de Mathelin, M, Dresch-Langley, B
- 12 **A new CAPTCHA for Improving the performance of computer-human differentiation using color constancy**
Yamanouchi, T, Yanaka, K
- 13 **The DiaNAH test battery for visual perceptual disorders: Validity and efficacy in rehabilitation practice**
Heutink, J, de Vries, S, Melis-Dankers, B, Vrijling, A, Cornelissen, F, Tucha, O

Attention & visual search

- 14 **Different time courses between the effect of fearful and disgusted facial expressions on attentional blink**, Takeshima, Y
- 15 **Conjunction visual search of isoluminant stimuli: Impact of fatigue**
Pladere, T, Krumina, G, Bete, D, Skilters, J
- 16 **Demanding task can delay time course of gaze-induced inhibition of return**
Chen, S, Jingling, L
- 17 **Neural mechanisms of dual-target visual search research based on brain stimulation methods**
Lanina, A, Gorbunova, E, Feurra, M
- 18 **A Gestalt-based guided visual model for multiple object search**
Yang, K, Zhao, J, Li, C, Li, Y
- 19 **Neurodynamical evidence of gaze prediction decrease with saccade number**
Berga, D, Otazu, X
- 20 **Priming of pop-out is affected by expectations**
Shurygina, O, Kristjánsson, Á, Tudge, L, Chetverikov, A
- 21 **Gaze cueing is tuned to extract the mind behind the gaze: Investigations of 'gaze deflection'**
Colombatto, C, Chen, Y, Scholl, B
- 22 **Vertical hemifield asymmetries in character decomposition and transposition processes of Chinese compound words**
Cao, H, Yan, H
- 23 **How does image geometry affect attention? Developing a novel gamified version of spatial orienting paradigm**
Ruta, N, Burleigh, A, Barratt, E, Pepperell, R

Colour vision

- 24 **No matter if you're black or white, for a color to be positive it has to be bright: On the universal and automatic association between brightness and positivity**
Specker, E, Leder, H, Rosenberg, R, Hegelmaier, L, Mikuni, J, Kawabata, H
- 25 **The color perception of #TheDress**
Feitosa-Santana, C, Lutze, M, Barrionuevo, P, Cao, D
- 26 **Assessment of corrective and simulation filters for colour vision deficiencies**
Alvaro, L, Linhares, JMM, Douds, LJ, Mailman, EL, Formankiewicz, MA, Waugh, SJ

Computational vision

- 27 **A topological perception theory inspired method for feature extraction from images**
Peng, P, Li, C, Li, Y

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- 28 **Picasso's contours and Seurat's shading: An abstract invariant anchors surface inferences**
Zucker, S, Kunsberg, B
- 29 **A quantitative model for attentional shift, shrinkage and visual compression in area MT**
Schwarz, A, Hamker, FH
- 30 **A differential equation-based spatiotemporal model of single neuron in the monkey's V4 area**
Jamalian, A, Hamker, FH

Eye movements

- 31 **Saccadic gain modulation by manipulating a visual discrimination task**
Rahmouni, S, Montagnini, A, Madelain, L
- 32 **Searching for indicators of changes in visual perception caused by sleep deprivation**
Kroll, A
- 33 **Detecting concealed memory via eye movements**
Lancry, O, Nahari, T, Ben-Shakhar, G, Pertzov, Y
- 34 **Eye movement strategies during recognition in own- and other-race faces**
Kogan, A, Menshikova, GY
- 35 **Contextual control of saccadic reaction times using a latency-contingent paradigm**
Vullings, C, Madelain, L

Face perception

- 36 **Expressive faces confuse identity recognition**
Redfern, A, Benton, C
- 37 **Neural correlates of face identity learning: Establishing representations of own- and other-race people**
Tüttenberg, S, Wiese, H
- 38 **Human-computer interaction in forensic face matching**
Fysh, M, Bindemann, M
- 39 **Electrophysiological brain dynamics during preconscious processing of facial attractiveness**
Nakamura, K, Tanaka, T, Naya, C, Kawabata, H
- 40 **The influence of orientation on discrimination of composite facial expressions**
Menshikova, GY, Bondarenko, Y
- 41 **Cross-cultural features of manifestation of the categorical perception in viewing faces of different races**
Ananyeva, K, Basyul, I, Demidov, A
- 42 **Individual differences in children's face recognition abilities**
Jeffery, L, Thorburn, M, Bothe, E, Engfors, LM, King, A, Turbett, K, Wang, X, Watson, P, Palermo, R
- 43 **Faces, fingers and guns: Implicit preference for any self-directed attention**
Lawson, R
- 44 **Do sunglasses hide your feelings?**
Heard, P, Bainbridge, H
- 45 **Do spatial frequencies combine into a holistic representation of a face in the short-term memory?**
Babenko, V, Yavna, D, Boychenko, N
- 46 **Gender differences in visual perception of own body weight**
Thaler, A, Piryankova, I, Geuss, MN, Stefanucci, JK, de la Rosa, S, Streuber, S, Romero, J, Black, MJ, Mohler, BJ

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- 47 **Affective mindreading and metacognitive accuracy in recognizing emotions in others among patients with schizophrenia**
Cyrkot, T, Cicho, E, Szczepanowski, R
- 48 **Perceptual face-categorization constraints imposed by duration of stimulus presentation and inter-stimulus interval**
Retter, TL, Rossion, B

Lightness, brightness, & contrast

- 49 **Material dependent appearance effects brought out by natural light environments**
Zhang, F, de Ridder, H, Barla, P, Pont, S
- 50 **Lightness contrast and assimilation: Classical effects revisited**
Nedimović, P, Zdravković, S
- 51 **Effects of different luminance levels on population receptive field estimates in primary visual cortex**
Molz, B, Gouws, A, Baseler, HA, Morland, AB
- 52 **The human visual cortex responds to melanopsin-directed stimulation**
Spitschan, M, Bock, A, Ryan, J, Frazzetta, G, Brainard, D, Aguirre, G
- 53 **Top-down and bottom-up neuromodulation over two different visual illusions**
Maddaluno, O, Facchin, A, Zavagno, D, Bolognini, N, Daini, R
- 54 **Light zones in depth**
Kartashova, T, de Ridder, H, te Pas, S, Pont, S
- 55 **Saliency of "Magic Mirror" projected images**
Brecher, K

Memory & cognition

- 56 **Are memorable images easier to categorize rapidly and do they survive shrinking better?**
Goetschalckx, L, Vanmarcke, S, Moors, P, Wagemans, J
- 57 **The possible role of area LO1 in numerical cognition**
Maechler, M, Malloni, W, Greenlee, MW
- 58 **Can metacognition really be dissociated from visual short-term memory?**
Stein, T, Keijsers, M
- 59 **The influence of cardiac signals on visual sampling and memory performance**
Kunzendorf, S, Klotzsche, F, Akbal, M, Villringer, A, Ohl, S, Gaebler, M
- 60 **Three-dimensional space representation of morality concepts**
Wang, Z, Zhang, P, Li, L, Yuan, Y, Zhang, P, Dong, W, Li, L, Yue, X

Motion

- 61 **Perception of expressive body movements by individuals with autism spectrum disorder**
Sevdalis, V, Mayer, J, Filer, K, Keller, P, Heaton, P
- 62 **Effects of motion picture frame rate on image quality**
Allison, R, Fujii, Y, Wilcox, L
- 63 **Exploring the effects of contrast on optic flow-parsing**
Warren, P, Rushton, S, Champion, R, Apriliawati, D
- 64 **Two-point resolution evaluated with apparent motion**
Dobrovski, V, Garusev, A, Savelyev, V
- 65 **Fast random motion biases judgments of visible and occluded motion speed**
Battaglini, L, Casco, C

Multisensory perception

- 66 **Temporal dynamics of a perceptual decision**
Zeljko, M, Grove, P, Kritikos, A
- 67 **Olfactory stimulation affects motion perception**
Tsushima, Y, Nishino, Y, Ando, H
- 68 **Partially overlapping visual and auditory spatial representations revealed by sensory augmentation**
Pasqualotto, A, Kaplan, AP, Baykara, M
- 69 **Shorter response time with a warm hand for "warm" stimuli: The compatibility effects between "warm-cold" visual stimuli and hand temperatures**
Kanaya, H, Nishizaki, Y, Nagai, M
- 70 **Development of multisensory integration in newly sighted individuals**
Senna, I, Ernst, M
- 71 **Virtual insanity – perceived distance anisotropy in virtual and physical reality**
Tošković, O
- 72 **"Aha"ptics: Experiencing and enjoying an aesthetic aha during haptic exploration**
Muth, C, Albrecht, S, Marković, S, Carbon, CC

Natural images & scene perception

- 73 **Directed inhibition of emotional scenes in iconic memory: Interference of positive information**
Porubanova, M, Brocker, D, Geiger, E, Clarke, J, Erol, M, Mack, A
- 74 **Scale invariance does not hold for high dynamic range images, but is reestablished by early retinal nonlinearities**
Grimaldi, A, Kane, D, Bertalmío, M
- 75 **Human sensitivity to distortions of image structure induced by a deep neural network texture model**
Funke, CM, Wallis, TSA, Ecker, AS, Gatys, LA, Bethge, M

Object recognition

- 76 **A role for parietal area LIP in object recognition behavior**
Bisley, J, Mirpour, K, Ong, WS
- 77 **Seeing through transparent layers**
Dovencioğlu, D, van Doorn, A, Koenderink, J, Dörschner, K
- 78 **The role of contextual congruency and spatial location plausibility on object recognition**
Livne, T, Sagi, D
- 79 **Comparing human and deep convolutional neural network performance on scene segmentation**
Seijdel, N, Losch, MM, de Haan, EHF, Scholte, HS
- 80 **Neurophysiological correlates of conflict between gesture representations during object perception**
Waiman, Y, Sahaï, A, Décroix, J, Coello, Y, Kalénine, S
- 81 **Category-selective processing in the two visual pathways as a function of visibility**
Darcy, N, Sterzer, P, Hesselmann, G
- 82 **A novel 'superstitious approach' reveals the role of color and external lighting in the reconstruction of mental imagery**
Gill, D

Perception & action

- 83 **Visual illusions affect aiming performance and skill acquisition**
Canal-Bruland, R

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- 84 **Arousal boosts decision- and attention-related top-down signals in early visual cortex**
De Gee, JW, Knapen, T, Donner, TH
- 85 **Grasping in the context of the visual Uznadze illusion driven by relative, not absolute size**
Bruno, N, Pisu, V, Uccelli, S
- 86 **Disentangling the within-trial time courses of motor IOR and „attentional“ IOR**
Panis, S, Wolkersdorfer, M, Schmidt, T
- 87 **A motor recalibration influence on Color-Motion Asynchrony (CMA) effect size in a visuo-motor paradigm**
Kurtcan, AM, Ayhan, I

Perceptual learning

- 88 **Influence of visual prism adaptation on acoustic space**
Pochopien, K, Fahle, M
- 89 **Brain responses to unpredicted changes in the structure and clarity of unpredicted visual input: Visual mismatch negativity to orientation and contrast changes in upper and lower visual fields**
Male, A, O'Shea, R, Roeber, U

Perceptual organisation, segmentation, & grouping

- 90 **The thin building illusion and amodal volume perception**
Ekroll, V, Mertens, K, Wagemans, J
- 91 **Sensory mechanisms of perceptual uniformity**
Suárez-Pinilla, M, Seth, A, Roseboom, W
- 92 **Voluntary spatial attention influences feature biases in object correspondence**
Stepper, M, Rolke, B, Hein, E
- 93 **Pleasure integration,**
Brielmann, A, Pelli, D
- 94 **Increased visual metacontrast masking in migraine using a novel global shape task: No evidence for a lack of inhibition in extrastriate cortex in migraine**
Shepherd, A, Walsh, E, Jonusas, A, Rodrigues, R, Wyatt, G

Research methods

- 95 **Combining eye-tracking and EEG: Some updates to the EYE-EEG toolbox**
Dimigen, O
- 96 **An overview of the transcendental psychology approach to the study of perceptual generative processes**
Artemenkov, S, Shookova, G

Spatial vision

- 97 **A new mechanism of visual perception of spatial extent, based on the temporal characteristics of standardizing the size of the stimulus**
Shookova, G, Artemenkov, S
- 98 **Depth and context modulate the cortical activation to object size**
Wu, C, Chen, C
- 99 **A new non-linear mapping function between visual space and physical space**
Watanabe, T
- 100 **The common perceptual effects of crowding in amblyopic, developing, and peripheral vision**
Kalpadakis-Smith, A, Taylor, V, Dakin, S, Dahlmann-Noor, A, Greenwood, J
- 101 **Crowding limits reading performance in children with infantile nystagmus**
Huurneman, B, Boonstra, N, Goossens, J

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- 102 **Autistic individuals show typical use of prior information during interrupted visual search**
Parsons, O, Freyberg, J, Baron-Cohen, S

Time perception & temporal processing

- 103 **Adaptation to visual numerosity can affect time perception but not the other way around**
Tsouli, A, van der Smagt, M, te Pas, S, Dumoulin, S

Vision & art

- 104 **How the aesthetics of the urban space might shape our implicit attitudes towards brands: The role of artistic „Subvertising“ via modified brand logos**
Wehrle, T, Ortlieb, S, Carbon, CC
- 105 **The influence of music on watching paintings: An eye movement study**
van Lier, R, Bisselink, S, Koning, A
- 106 **Predicting visual complexity of abstract patterns: Edges, corners, compression rate, and mirror symmetry**
Gartus, A, Leder, H

TALKS 13:30–15:30

Talk Session, Auditorium

Memory & serial dependencies

Chair: Tobias Feldmann-Wüstefeld

- 13:30 **Serial dependence in visual search**
Manassi, M, Kristjánsson, Á, Whitney, D
- 13:45 **Adaptive serial dependence of visual estimates**
Aitken, F, Ales, J
- 14:00 **The contribution of active suppression to efficient visual working memory: An ERP study**
Feldmann-Wüstefeld, T, Vogel, EK
- 14:15 **EEG correlates of priority switches in working memory-driven visual search**
de Vries, I, van Driel, J, Olivers, CNL
- 14:30 **Serial-dependencies in the perception of orientation, number, faces and bodies**
Burr, DC, Cicchini, GM, Mikellidou, K
- 14:45 **The perceptual consequences of serial dependencies**
Cicchini, GM, Mikellidou, K, Burr, DC
- 15:00 **Spatially specific working memory improvements in the vicinity of visual landmarks**
Aagten-Murphy, D, Bays, PM
- 15:15 **Independent effects of eye and hand movements on visual working memory**
Hanning, NM, Deubel, H

Symposium, Lecture Hall A

Getting excited about visual perception: The impact of physiological arousal on visual perception
Organizer: Rosanne L. Rademaker

Perceiving the everyday world is achieved under a great range of circumstances. You might be sitting down or running around, drowsy or over-caffeinated, happy, sad, scared, or in pain.

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How do such changes in physiological arousal state affect perception? And how do arousal states relate to attention?

- 13:30 **Effects of locomotion on the activity of the mouse visual system**
Diamanti, EM, Shimaoka, D, Dipoppa, M, Harris, KD, Carandini, M
- 13:50 **Altered sensitivity and tuning in visual cortex during defensive mobilization: Evidence from autonomic physiology and multimodal imaging**
Keil, A
- 14:10 **Visual input signaling threat gains preferential access to awareness**
Gayet, S, Paffen CLE, Belopolsky, VA, Theeuwes, J, Van der Stigchel, S
- 14:30 **Acute exercise modulates visual responses in human cortex**
Bullock, T, Elliott, JC, Cecotti, H, Serences, JT, Giesbrecht, B
- 14:50 **Arousal state enhances contrast sensitivity under conditions of exogenous attention**
Rademaker RL, Ling, S, Sack, AT
- 15:10 **General discussion**

Controversy symposium, Lecture Hall C

The two-visual-systems hypothesis: A critical appraisal and update

Organizer: Guido Hesselmann

This symposium will provide the audience with an update on the current status of the perception-action model and outline avenues for future research.

- 13:30 **Introduction**
Hesselmann, G
- 13:35 **The neuroanatomical basis of the functional properties of the dorsal and ventral pathways**
Kravitz, D
- 13:55 **Two streams or a delta? Neuroimaging contributions to interpreting the two visual streams hypothesis**
Culham, JC
- 14:15 **Perception-action dissociations: The status of a long-lasting debate**
Franz, VH, Kopiske, KK, Bruno, N, Hesse, C, Schenk, T
- 14:35 **The two visual systems hypothesis: Updates from neuropsychology and pictorial illusions**
Whitwell, RL, Enns, JT, Goodale, MA
- 14:55 **The neuropsychology of perception and action**
Schenk, T
- 15:15 **Panel discussion**

TALKS 16:00–17:00

Talk Session, Auditorium

Object recognition

Chair: Stefania Bracci

- 16:00 **Object appearance, but not semantics, is represented in the human category-selective cortex.**
Bracci, S, Kalfas, I, Op de Beeck, H

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- 16:15 **Inferring animacy from mid-level shape features**
Schmidt, F, Hegele, M, Fleming, RW
- 16:30 **Pupillary response indicates target identification in visual search**
Velichkovsky, B, Grigorovich, S
- 16:45 **Perceiving the softness and plasticity of deformable materials**
Paulun, VC, Schmidt, F, Fleming, RW

Talk Session, Lecture Hall A

Spatial vision

Chair: Daniel R. Coates

- 16:00 **Transfer of object information between the periphery and fovea; an MEG study**
Watson, T, Balsdon, T, Carlson, T, Williams, M
- 16:15 **Objective visual acuity estimation in amblyopia: The case of distorted vision**
Heinrich, SP, Beusterien, M, Bock, CM, Bach, M
- 16:30 **Deconstructing peripheral appearance**
Coates, DR, Yildirim, ZF, Melnik, N, Sayim, B
- 16:45 **Increased stimulation of ipRGCs affects achromatic spatial contrast sensitivity**
Yeh, SL, Chien, SE, Matsumoto, A, Yamashita, W, Tsujimura, SI

Talk Session, Lecture Hall C

Multisensory perception

Chair: Alessia Tonelli

- 16:00 **The influence of auditory cues on visual size aftereffect**
Tonelli, A, Cuturi, LF, Gori, M
- 16:15 **Granger causality analysis reveals the role of the hippocampal complex in the memory functions of primary visual cortex**
Likova, L
- 16:30 **Time is used to infer space in visually impaired individuals**
Gori, M, Amadeo, MB, Campus, C
- 16:45 **Involuntary orienting to sound can retrospectively improve visual perception**
Rimsky-Robert, D, Lisi, M, Delporte, C, Störmer, V, Sergent, C

POSTERS 17:00–18:00

3D vision, depth, binocular vision, rivalry

- 1 **Binocular rivalry transitions predict inattention symptom severity in adult ADHD**
Jusyte, A, Zaretskaya, N, Höhnle, NM, Bartels, A, Schönenberg, M
- 2 **Observation on the changes of perceptual eye position, fine and rough stereopsis before and after surgery in children with intermittent exotropia**
Shi, W, Chu, H, Yan, L
- 3 **Surface smoothness and surface discontinuity bias the perception of stereoscopic depth**
Goutcher, R, Connolly, E, Hibbard, PB
- 4 **Early neural correlates of visual consciousness show the oblique effect: A binocular rivalry and event-related potential study**
Jack, B, Roeber, U, O'Shea, R

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- 5 **Investigation of interocular blur suppression with natural images reveals significant individual differences**
Baldwin, AS, Hess, RF
- 6 **Detecting binocular cortical visual activity against a background of neural dust**
Parker, A, Bridge, H
- 7 **Two factors of the vista paradox**
Todorovic, D

Aging & development

- 8 **Improvement of visual search task in children**
Parkosadze, K, Kunchulia, M, Kezeli, A

Applied vision

- 9 **Exploration strategies and physiological reactions regarding car shape**
Moreira, AJ, Lemerrier, A, Hir, NL, Herbeth, N, Sparrow, L
- 10 **Effect of time pressure and task order predictability on dual task interference in a simulated driving paradigm**
Abbas-Zadeh, M, Hossein-Zadeh, G, Vaziri-Pashkam, M
- 11 **Cue potency modulates task switching costs: The role of perceptual processes in cognitive control**
McCourt, ME, Wylie, G, Blakeslee, B, Padmanabhan, G
- 12 **The clear-cut water drop: A visual illusion to perceive top-down saccadic fill-in**
Raab, M, Carbon, CC

Attention & visual search

- 13 **Feature-based selection is unaffected by dividing spatial attention**
Adamian, N, Slaustaitė, E, Andersen, S
- 14 **Effective task-switching behaviour despite fatigue by sleep restriction**
Hanson, G, Menneer, T, Hillstrom, A, Taunton, D
- 15 **Are effects of divided attention in change detection due to memory and decision?**
Moreland, J, Palmer, J, Boynton, G
- 16 **Unequal allocation of attention while tracking multiple objects**
Crowe, E, Howard, C, Attwood, A, Kent, C
- 17 **Differences in EEG delta and alpha power after sleep restriction predict increased sleepiness and slowed reaction times in a sustained visual attention task**
Apthorp, D, Shenfield, L, Beanland, V
- 18 **Target color and contrast influences temporal attention in rapid serial visual presentation tasks**
Karabay, A, Akyurek, EG
- 19 **Perceptual orientation tuning before saccades**
Kuper, C, Ohl, S, Rolfs, M
- 20 **Intact attentional guidance but impaired explicit categorization of fearful expressions in antisocial violent offenders**
Jusyte, A, Stein, T, Schönerberg, M
- 21 **Assessing the influence of emotion in dynamic animated agent gaze-based cueing: the neglected role of handedness**
Bain, C, Wright, L, Scott-Brown, K, Sloan, R
- 22 **Illusory motion captures attention**
Zdravković, S, Thornton, IM

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- 23 **Top-down modulation in the categorization of natural scenes**
Cesarei, AD, Cavicchi, S, Micucci, A, Codispoti, M
- 24 **Is color-based attention an effective filter for symmetry detection?**
Elschner, SG, Hübner, R

Colour vision

- 25 **Processing of chromatic and achromatic information in convolutional neural networks trained for object classification**
Flachot, A, Gegenfurtner, KR
- 26 **On overcoming colour deficiency using a coloured filter**
Logvinenko, A
- 27 **A method for performing colour constancy studies using a tablet computer**
Garside, D, MacDonald, L, Robson, S, Curran, K, Korenberg, C, Teunissen, K

Computational vision

- 28 **A two-stage model of decision making**
Doerig, A, Drissi-Daoudi, L, Herzog, MH
- 29 **A neurodynamical account of how emotions affect brightness perception**
Mari, M, Domijan, D
- 30 **A luminance-free and event-based model for asynchronous motion prediction**
A.Khoei, M, Benosman, R
- 31 **Can biological solutions help computers to detect symmetry?**
Akbarinia, A, Parraga, C, Expósito, M, Raducanu, B, Otazu, X
- 32 **A multi-scale neural architecture for incremental grouping**
Domijan, D, Marić, M

Eye movements

- 33 **Collicular coding of efference copy in humans**
Collins, T, Bonnet, E, Vitu, F
- 34 **Eye dominance strength modulates the global effect on saccade accuracy**
Tagu, J, Doré-Mazars, K, Vergilino-Perez, D
- 35 **How the dynamics of human smooth pursuit is influenced by speed uncertainty**
Pour, KM, Perrinet, I, Montagnini, A, Masson, G
- 36 **Eye-movement patterns and reaction-time as indices of cognitive impairment malingering**
Wagner, M, Lupo, T, Braw, Y, Elbaum, T
- 37 **Effect of sudden image onset and early gist extraction on the central fixation bias**
Schwetlick, L, Rothkegel, LOM, Trukenbrod, HA, Engbert, R
- 38 **How many observers do you need to create a reliable saliency map in VR attention study?**
Bolshakov, A, Gracheva, M, Sidorchuk, D
- 39 **The influence of previous rewards on attentional selection is dependent on visual awareness**
Rothkirch, M, Daschowski, Y, Sterzer, P
- 40 **Proof validation in abstract algebra: An eye-tracking study**
Chen, W, Wen, ML
- 41 **Maintaining the spatial memorandum - interplay between internal and external strategies in a digital CORSI task**
Hardiess, G, Mallot, HA
- 42 **Using an image-computable early vision model to predict eye movements**
Schütt, HH, Rothkegel, LOM, Trukenbrod, HA, Engbert, R, Wichmann, FA

TUESDAY, 29 AUGUST

- 43 **Accurate saccadic reaction time discrimination in humans**
Vencato, V, Madelain, L
- 44 **Eeny meeny artsy fartsy: Eye tracking to explore preference for paintings generated by deep neural networks**
Stevanov, J, Tálas, L, Hemmerich, WA, Leonards, U

Face perception

- 45 **Psychophysical evidence suggests late rather than early integration of visual information from facial expression and body posture**
Teufel, C, van den Hagen, E, Fletcher, P
- 46 **The processing of dynamic faces in the human brain: Support for a revised neural framework of face processing**
Bernstein, M, Erez, Y, Blank, I, Yovel, G
- 47 **Task dependent effects of head orientation on perceived gaze direction**
Balsdon, T, Clifford, CWG
- 48 **The three-quarter face view in yaw and pitch: Generalising within and across axes**
Favelle, S, Palmisano, S
- 49 **Hemispheric lateralization of the N170 inversion effect for faces and words**
Vékony, T, Csifcsák, G
- 50 **Reflecting and optimizing the terminology of prosopagnosia research**
Poungjit, A, Carbon, CC
- 51 **The influence of face identity noise on face recognition in healthy subjects and patients with mild traumatic brain injury - an equivalent noise approach**
Schmidtman, G, Wehbé, F, Sandra, DA, Farivar, R
- 52 **Does interest equal ability? Probing the association between social motivation and face expertise**
Papasavva, MP, Ewing, L, Mares, I, Richards, A, Smith, ML
- 53 **Visualization of beautiful and ugly face representations of individuals**
Naito, T, Hirogaki, K, Shiraishi, Y, Sato, H
- 54 **Lack of the other race effect in Malaysian-Chinese population**
Estudillo, AJ, Keeble, D, Stephen, I, Wong, Hk
- 55 **Visual working memory of own- and other-race faces**
Zhao, M, Bülthoff, I
- 56 **How many faces do people know?**
Jenkins, R
- 57 **Cathodal-tDCS over the human right occipital cortex induces the "Other-Race" effect**
Rivolta, D, Costantino, AI, Titoni, M, Bossi, F, Nitsche, M
- 58 **Unfamiliar face matching at a virtual reality airport**
Tummon, H, Allen, J, Bindemann, M

Lightness, brightness, & contrast

- 59 **Newborn chicks show lightness constancy despite a change in either illumination or background**
Gilchrist, A, Jevtic, K, Altamirano, C, Peyvandi, S, Vallortigara, G

Memory & cognition

- 60 **Internal but not external noise frees working memory resources**
Tomić, I, Bays, PM
- 61 **Imagery of distant places: Interaction of visuospatial working and long-term memories**
Grochulla, B, Mallot, HA

TUESDAY, 29 AUGUST

- 62 **Decoding attended and unattended items in working memory: No evidence for activity-silent memory representations**
Iamshchinina, P, Christophel, TB, Yan, C, Allefeld, C, Haynes, J
- 63 **Cognitive strategies for solving graphically presented chemical tasks**
Ishmuratova, Y, Blinnikova, I
- 64 **Boundary extension in upright and inverted faces**
Blazhenkova, O
- 65 **Test-retest comparison of current source density estimates obtained using magnetoencephalography and electroencephalography during a visual short-term memory task**
Kunimi, M, Hiroe, N, Machizawa, M, Yamashita, O

Motion

- 66 **TMS-induced disturbance of self-motion perception**
Schmitt, C, Baltaretu, B, Crawford, J, Bremmer, F
- 67 **Men's perception of women's personality from static and dynamic visual cues**
Röder, S, Fink, B, Carbon, CC
- 68 **Individual differences in social perception and cognition related to autistic traits**
Schultz, J, Zecua, L, Chakkour, G, Franke, A, Hurlermann, R
- 69 **Stairs or ramps: Gender difference in route selection**
Yang, J
- 70 **Sensitivity of visual motion to two stimuli presented in peripheral vision with horizontal eccentricities of 20° to 50°**
Kishida, T, Susami, K, Utsumi, A
- 71 **A predictive retinal map for perceptual stability and efficient coding**
Rushton, S

Multisensory perception

- 72 **The effect of stimulus intensity on perceived audio-visual simultaneity, temporal order and reaction times**
Horsfall, R, Wuerger, S, Meyer, G
- 73 **Sound attraction toward non-visual zones in patients with scotoma**
Ahmad, H, Setti, W, Capris, E, Facchini, V, Gori, M
- 74 **Development of non-visual multisensory integration in sighted and non-sighted individuals**
Scheller, M, Proulx, M, Petrini, K
- 75 **Visual-tactile integration in low- and high-level visual processing: Applications for impaired persons**
van Wezel, R, Gardoh, A, Buimer, H, Stokkermans, M, Burg, I, Schellens, R, Nonnekens, J, Nemri, A, Bremen, P, van der Geest, T, van Ee, R, Zhao, Y
- 76 **Cross-modal mappings between vocal sound and motion imagery: Implicit association test**
Yamauchi, N, Tanaka, H, Shinohara, K
- 77 **Sounds facilitate visual completion**
Tivadar, R, Matusz, P, Turoman, N, Murray, M

Natural images & scene perception

- 78 **The tuning of human visual cortex to naturalistic stimuli varying in their 1/f amplitude spectra in both space and time**
Isherwood, Z, Clifford, CWG, Schira, M, Spehar, B
- 79 **The role of contrast normalisation and surround suppression mechanisms in modelling suprathreshold differences ratings in natural images**
To, M, Tolhurst, D

TUESDAY, 29 AUGUST

- 80 **Towards perception inspired numerical measures of compression error in digital holograms of natural three-dimensional scenes**
Lehtimäki, T, Reilly, R, Naughton, T
- 81 **Effect of scene memorability on change detection performance**
Lukavsky, J, Ptackova, B, Adamek, P, Dechterenko, F
- 82 **Graphical impression reproduced by 2D raster scan spectrum measurement**
Sakata, K

Object recognition

- 83 **Rapid categorization task in normal aging**
Lenoble, Q, Szafrarczyk, S
- 84 **Traffic scene segmentation method for smartphone advanced driver assistance system**
Voinea, D, Duguleana, M
- 85 **Selective attention in a stepwise discrimination task by pigeons**
Vyazovska, OV, Navarro, VM, Wasserman, EA
- 86 **The role of articulation in transparent layer scene constancy**
Falkenberg, C, Faul, F
- 87 **Neurodynamical model for the adaptation of neurons in area IT**
Giese, MA, Kuravi, P, Vogels, R
- 88 **Typical real-world locations impact object coding across the visual field**
Moeskops, M, Kaiser, D, Cichy, RM
- 89 **Visual crowding in clutter: It all depends on the target's nearest neighbours**
Van der Burg, E, Zandstra, MG, Cass, J

Perception & action

- 90 **Action capacity does not directly influence visual perception: Evidence for the cognitive impenetrability of vision**
Collier, E, Lawson, R
- 91 **Perceptual judgments of a ball rolling down an incline**
Ceccarelli, F, Scaleia, BL, Cesqui, B, Russo, M, Moscatelli, A, d'Avella, A, Lacquaniti, F, Zago, M

Perceptual organisation, segmentation, & grouping

- 92 **The effect of limited-lifetime duration and dynamic relocation of elements on symmetry perception**
Sharman, RJ, Gheorghiu, E
- 93 **The effect of number of colours and luminance-polarity on the electro-physiological response to mirror-symmetry**
Wright, D, Mitchell, C, Dering, B, Gheorghiu, E
- 94 **Different development of visual acuity and crowding effect**
Facchin, A, Galati, C, Maffioletti, S, Daini, R
- 95 **The effect of overall stimulus configuration on crowding**
Pachai, M, Roinishvili, M, Herzog, MH

Research methods

- 96 **Presenting visual stimuli with ultra-high temporal resolution using gaming monitors and G-Sync**
Poth, CH, Foerster, RM, Behler, C, Schneider, WX, Botsch, M
- 97 **Exploring the effect of short-term plasticity on postoperative binocular visual function recovery in intermittent exotropia**
Liao, Y, Pang, S

TUESDAY, 29 AUGUST

- 98 **Visually induced motion sickness: Accumulation and adaptation in repeated and extended exposures**
Shahal, A, Hemmerich, WA, Hecht, H

Spatial vision

- 99 **Anisotropy in visual space with near and far landmarks**
Mori, M, Watanabe, T
- 100 **Indirect visual influence on different spaces around the body**
Aggius-Vella, E, Campus, C, Gori, M

Time perception & temporal processing

- 101 **Prioritization of temporal regularities for visual awareness**
Hu, R, Jiang, Y, Wang, Y
- 102 **Temporal predictability changes the perception of the onset and offset of a visual stimulus, but not its duration**
Hein, E, Rolke, B
- 103 **Contextual motion and transients disrupt visual timing performance**
Cass, J, Van der Burg, E
- 104 **Fear alters audio-visual temporal synchrony: A time-course analysis**
Preciado, D, Van der Burg, E, Theeuwes, J

Vision & art

- 105 **Variance of features in artworks and other image categories**
Brachmann, A, Barth, E, Redies, C
- 106 **Watching contemporary dance choreographies: Relationships between observers' somatic reactions and aesthetic experience**
Vukadinović, MS, Marković, S, Kucsera, AV
- 107 **The importance of behaviour as an aesthetic feature**
Soranzo, A
- 108 **Individual differences in the visual preference for curved contours**
Belman, M, Currò, T, Corradi, GB, Rosselló, J, Nadal, M, Munar, E
- 109 **Reliability of portable stereo device for testing hollow-face illusion in schizophrenia patients and controls**
Papathomas, T, Farkas, A, Silverstein, S, Kourtev, H, Papayanopoulos, J, Li, Y
(belongs to topic "3D vision, depth, binocular vision, rivalry")

WEDNESDAY AT A GLANCE

09:00–11:00 h

Auditorium: Talk session 'Eye movements: Basic'

Hall A: Symposium 'Visual cognition & Multivariate analysis'

Hall C: Symposium 'Sensorimotor dysfunction'

11:00–11:30 h Coffee break

11:00–12:30 h

Poster Session

12:30–13:30 h Lunch break

13:30–15:30 h

Auditorium: Controversy 'Crowding'

Hall A: Symposium 'Perceptual estimation'

Hall C: Talk session '3D, depth & binocular vision'

15:30–16:00 h Coffee break

16:00–17:00 h

Auditorium: Talks session 'Natural scenes'

Hall A: Talk session 'Perceptual learning'

Hall C: Talk session 'Motion & time'

17:00–18:30 h

Poster Session

18:30–20:00 h

Auditorium: **RANK PRIZE LECTURE**

Visual material perception

Shin'ya Nishida

NTT Communication Science Labs, Japan

Sponsor: The Rank foundation

WEDNESDAY, 30 AUGUST

TALKS 9:00–11:00

Talk Session, Auditorium

Eye movements: Basic

Chair: *Lukasz Grzeczkowski*

- 9:00 **The role of attention in eye movement awareness**
Mahon, A, Clarke, ADF, Hunt, AR
- 9:15 **Saccade reorienting is facilitated by pausing the oculomotor program**
McIntosh, R, Buoncore, A
- 9:30 **Eye movements in response to illusory shifts of visual targets**
Anstis, S, Ito, H
- 9:45 **A multistable gravitational potential approach to fixational eye movements**
Parisot, K, Chauvin, A, Guérin-Dugué, A, Phlypo, R, Zozor, S
- 10:00 **Oculomotor adaptation to natural environments: The empirical isovergence surface**
Gibaldi, A, Banks, M
- 10:15 **Contrast dependency of trans-saccadic feature integration**
Grzeczkowski, L, Deubel, H, Szinte, M
- 10:30 **Mechanisms of coarse-to-fine perceptual dynamics**
Casile, A, Rucci, M
- 10:45 **How immediate feedback reinforces efficient saccades**
Verghese, P, Ghahghaei, S

Symposium, Lecture Hall A

Resolving the temporal dynamics of human visual cognition using multivariate analysis of EEG and MEG data

Organizers: *Johannes J. Fahrenfort & Radoslaw M. Cichy*

The aim of this symposium is to highlight multivariate techniques in MEG/EEG data analysis (backward decoding, forward encoding models, generalization across time matrices, RSA). These techniques will be highlighted in the context of a broad range of vision-based cognitive functions, such as consciousness, working memory, and object recognition.

- 9:00 **Decoding the representation, selection and maintenance of invisible stimuli along the visual hierarchy**
King, JR
- 9:20 **Using MEG to track attention during naturalistic visual search**
Kaiser, D, Battistoni, E, Oosterhof, NN, Hickey, C, Peelen, MV
- 9:40 **The spatiotemporal pattern of task and object processing**
Hebart, MN, Bankson, B, Harel, A, Baker, CI, Cichy, RM
- 10:00 **Oscillatory signatures of object recognition across cortical space and time**
Reddy, L, Cichy, RM, VanRullen, R
- 10:20 **Alpha-band and raw EEG reflect distinct maintenance mechanisms during working memory**
Fahrenfort, JJ, Van Leeuwen, J, Foster, JJ, Awh E, Olivers, CNL
- 10:40 **Choosing the dissimilarity measure for RSA in MEEG research**
Guggenmos, M, Cichy, RM

WEDNESDAY, 30 AUGUST

Symposium, Lecture Hall C

From vision to action: Sensorimotor dysfunction in neurological disease

Organizers: Miriam Spering & Jutta Billino

Sensorimotor deficits in neurological diseases offer a unique window to basic processing mechanisms. This symposium aims at presenting current vision research in different patient groups. It will give an overview of recent findings that elaborate our theoretical understanding with the ultimate goal of contributing to better clinical diagnosis and treatment

- 9:00 **Perceptual rehabilitation of prosopagnosia**
Barton, J, Davies-Thompson, J, Fletcher, K, Corrow, S
- 9:20 **Configural-superiority effects in stroke patients: Insights into the neural correlates of Gestalt perception**
Billino, J, Heck, S, Böhm, KD, Grewing, N
- 9:40 **Saccades and pupillary responses in neurological disease**
Munoz, DP
- 10:00 **The role of thalamic feedback projections in visuomotor integration and learning**
Ostendorf, F
- 10:20 **Attention for action: Evidence from peripheral and bimanual reaching in left visual neglect and extinction**
Rossit, S, Buckingham, G, Ford, C, Knights, E
- 10:40 **Eye movements as early indicators of cerebral small-vessel disease**
Spering, M, Palidis, DJ, Field, T

POSTERS 11:00–12:30

3D vision, depth, binocular vision, rivalry

- 1 **Behind optical factors in anisometric aniseikonia**
Esposito, G, Facchin, A, Maffioletti, M, Maffioletti, S, Gargantini, A, Bonfanti, S, Bonsignore, F, Nucci, P
- 2 **Stereoscopic acuity as a function of (optically-modified) interpupillary distance and additional monocular cues to depth**
Priot, A, Doumergue, F, Salasc, C, Plantier, J, Neveu, P
- 3 **Stereothreshold estimates from a Bayesian staircase versus post hoc fitting of a psychometric function**
Vancleef, K, Serrano-Pedraza, I, Morgan, G, Sharp, C, Black, C, Casanova, T, Hugill, J, Rafiq, S, Clarke, M, Read, J
- 4 **The luminance-depth gradient in 3D clutter: When does dark mean deep?**
Langer, M, Scaccia, M
- 5 **Exploring the binocular stereopsis energy model in strabismus patients after surgery**
Yan, L, Chu, H, Pang, S

Aging & development

- 6 **Is spatial scale selection sub-optimal in developmental dyslexia?**
Ledgeway, T, Johnston, R, Pitchford, N, Roach, NW

Applied vision

- 7 **The effect of naturalistic speech production on the functional field of view**
Davies, R, Young, A
- 8 **A view to a click: Pupil size changes as input command in eyes-only human-computer interaction**
Ehlers, J, Strauch, C, Huckauf, A

9 **Perceptual distortions in curved screens**

Serrano-Pedraza, I

Attention & visual search

10 **Perceptual load and subitizing: Distractor interference depends on subitizing capacity**
Eayrs, J, Lavie, N

11 **Oscillated temporal expectation as a unified account for the visual priming effects of response times**

Wang, M, Huang, Y, Luo, H, Zhang, H

12 **Modelling response times in multi-alternative categorization with TVA**

Blurton, S, Kyllingsbæk, S, Bundesen, C

13 **Odd man out in perceptual averaging: How do outliers influence judgments?**

Raidvee, A, Fougny, D

14 **Why does distractor cueing impair visual search? An experimental test of a feature inhibition account**

Seibold, VC

15 **Target feature selection leads to facilitation in repeated visual search in crowded displays**

Aivar, MP

16 **Effects of acute stress on the attentional network and working memory**

Pugh, S, Menneer, T, Taunton, D, Hillstrom, A, Donnelly, N

17 **Statistical averaging and deviant detection in heterogeneous arrays**

Pavlovskaya, M, Soroker, N, Bonnef, Y, Hochstein, S

18 **The effect of target salience and size in visual search within naturalistic scenes under degraded vision**

Nuthmann, A, Clayden, AC, Fisher, RB

19 **Local item density modulates adaptation of learned contextual cues**

Annac, E, Conci, M, Müller, HJ, Geyer, T

20 **Preparing for selection: The neural dynamics of temporal prediction (and its violation) in visual search**

Van Driel, J, Olivers, CN

Colour vision

21 **Factor analysis of individual differences in the spectral sensitivities of M/L cone pigments in bioengineered mice**

Peterzell, D, Bloxham, W, Jacobs, G

22 **The extreme retinal periphery: Experimental evidence of specific function suggested by A. Yarbus for blind retina**

Belokopytov, A, Rozhkova, G, Gracheva, M, Rychkova, S, Krutsova, E

23 **Individual differences in simultaneous contrast for color and brightness: Preliminary small-sample factor analyses reveal separate processes for short and long flashes, different hues and luminance polarities**

Kaneko, S, Murakami, I, Kuriki, I, Peterzell, D

24 **Impact of strabismic and anisometropic amblyopia in colour vision and contrast sensitivity of different levels of complexity**

Zagui, R, Costa, M

25 **Bright paint makes interior space surfaces appear farther away**

Freiherr von Castell, C, Hecht, H, Oberfeld-Twistel, D

26 **Are colours enough to make a painting beautiful?**

Albers, AM, Nascimento, SMC, Gegenfurtner, KR

Computational vision

- 27 **Detection of smallest changes in complex images comparing self-organizing map and expert performance**
Wandeto, J, Nyongesa, H, Dresch-Langley, B
- 28 **From understanding human visual development to improving CNNs**
Vogelsang, L, Gilad-Gutnick, S, Sinha, P
- 29 **Computing optic flow: A biologically inspired model**
Bowns, L

Eye movements

- 30 **Fixational eye-movements: An analysis of perturbation using frequency-tagged visual motion**
Ajasse, S, Lorenceau, J
- 31 **Looking behaviour and central preference indicate a “centre stage” heuristic**
Thoma, V
- 32 **Blink detection based on noise in pupillometry data**
Hershman, R, Cohen, N, Salti, M, Henik, A
- 33 **Multiple saccades enhance spatial specificity of resource allocation in visual short-term memory**
Ohl, S, Rolfs, M
- 34 **Integrating motion predictive information across different time scales: An eye-movement and transcranial random noise stimulation (tRNS) study**
Montagnini, A, Herpich, F, Battelli, L
- 35 **Ocular tracking of occluded ballistic trajectories: Effects of visual context and of targets’ law of motion**
Delle Monache, S, Ingrosso, R, Lacquaniti, F, Bosco, G
- 36 **Markers of surprise measured by the involuntary oculomotor response to auditory and visual stimuli**
Kadosh, O, Polat, U, Bonneh, Y
- 37 **Positive ERP components in the “go/no go” saccadic paradigm**
Slavutskaya, M, Karelin, S, Moiseeva, V, Shulgovsky, V
- 38 **Number magnitude influences saccade parameters: Evidence from foveal and peripheral processing**
Pressigout, A, Lavergne, L, Mishakina, J, Doré-Mazars, K

Face perception

- 39 **Trait anxiety is correlated with the correct categorization of faces, but not reaction times, in a spatial attention task**
Tulver, K, Allemann, I, Bachmann, T
- 40 **Leaders need to look trustworthy in times of peace but strong and devious in times of war**
Perrett, D, Lawrence, F, Collins, A, Holzleitner, I
- 41 **The effect of image size and face inversion on the uncanny valley**
Jung, JY, Jung, WH
- 42 **Specific patterns of dissociations between metacognitive awareness and visual emotion perception in individuals with schizophrenia.**
Cicho, E, Szczepanowski, R
- 43 **Tracking spatial frequency integration in EEG**
Petras, K, Goffaux, V
- 44 ---

- 45 **Is human face processing a feature- or pattern-based task? Evidence using a unified computational method driven by eye movements**
Thomaz, C, Amaral, V, Giraldi, G, Gillies, D, Rueckert, D
- 46 **The order of transfer of different spatial frequency information to the short-term memory**
Alexeeva, D, Babenko, V, Ermakov, P, Yavna, D
- 47 **Facial identification and feature integration under memory load**
Ölander, K, Saarela, T, Muukkonen, I, Salmela, V
- 48 **Facial identity learning in the occipital face area**
Ambrus, GG, Eisele, A, Windel, F, Burton, AM, Kovács, G
- 49 **Do you see what I see? Inferring target trajectory from another's tracking movements**
Palmer, C, Clifford, CWG
- 50 **Alexithymic, but not autistic, traits are associated with emotion adaptation**
Sou, KL, Burns, E, Lau, F, Xu, H
- 51 **Familiarity mediates face detection in natural scenes and can facilitate feature-based processing**
Bobak, A, Mileva, V, Hancock, P
- 52 **A model of configural processing for face detection**
Gnolo, C
- 53 **Best-worst scaling as an alternative to Likert ratings in face perception**
Burton, N, Burton, M, Rigby, D, Sutherland, C, Rhodes, G
- 54 **Effects of facial femininity/masculinity on the experience of beauty of male and female faces**
Jaksic, TT, Marković, S

Memory & cognition

- 55 **Individual perception style determines not explicit but implicit memory effect**
Hine, K, Tsushima, Y
- 56 **Design of a novel audio game to study spatial memory in visually impaired children**
Setti, W, Cuturi, LF, Cocchi, E, Danovaro, F, Gori, M
- 57 **The dynamic coding of visual relative-frequency**
Ren, X, Zhang, H
- 58 **Deficit in the delayed visuospatial memory in ADHD children**
Kiselev, S
- 59 **Expertise and recognition memory for aerial photographs**
Sikl, R, Svatonova, H, Dechterenko, F
- 60 **Can cognitive brain function be quantitatively evaluated by event-related fNIRS measurement?**
Kobayashi, A, Kohama, T, Yoshida, H
- 61 **Memory for past decision variables biases current perceptual choice**
Braun, A, Urai, AE, Donner, TH
- 62 **Intermittent overt choice alters the temporal weighting of sensory evidence in a continuous visual estimation task**
Talluri, BC, Urai, AE, Tsetsos, K, Bronfman, Z, Brezis, N, Usher, M, Donner, TH

Motion

- 63 **How do we discriminate the speed of looming?**
Lee, A, Ales, J, Harris, JM
- 64 **A mechanism for integration of visual speed**
Gekas, N, Meso, AI, Pour, KM, Masson, GS, Mamassian, P

WEDNESDAY, 30 AUGUST

- 65 **Attention restoration theory in motion: Is gait impacted differently by visual exposure to natural and urban environments?**
Joyce, K, Leonards, U
- 66 **Effects of perceptual grouping on apparent sliding motion**
Takahashi, N, Yukumatsu, S
- 67 **Vection perception across different display types: Wider, higher, stronger?**
Berti, S, Speck, M, Haycock, B, Keshavarz, B
- 68 **Suprathreshold contrast summation of motion direction signals**
McDougall, T, Dickinson, JE, Badcock, D

Multisensory perception

- 69 **When vision is more emotionally loaded than music – the impact of visual-acoustic congruencies in films on emotional assessments**
Utz, S, Carbon, CC
- 70 **The effect of consistency of wind speed and transfer speed on cutaneous vection**
Komatsu, H, Murata, K, Nakano, Y, Masuda, N
- 71 **Audiovisual integration of ON and OFF signals**
Parise, DC, Banks, M, Ernst, M
- 72 **Upside down: Task demands and stimulus characteristics reverse inverse effectiveness**
Ball, F, Starke, J, Michels, LE, Noesselt, T
- 73 **Does touch inhibit visual imagery? A case study on acquired blindness**
von Trotz zu Solz, J, Paolini, M, Silveira, S
- 74 **Silent movies evoke auditory sensations more readily when they contain greater low-level motion energy: Results of a large internet survey**
Freeman, E, Fassnidge, C
- 75 **Visual-vestibular congruency does not affect optic flow sensitivity**
Holten, V, MacNeilage, P
- 76 **Crossmodal modulatory effect on the perception of a bistable image: The conveyance of semantic congruency by using tones of voice as modulators**
Rodriguez, G, Rosa, P

Natural images & scene perception

- 77 **A bias for anisotropy in image classification**
Ismail, AMH, Solomon, JA, Hansard, M, Mareschal, I
- 78 **A dorsomedial cortical hemifield representation with functional connections to scene selective cortex in humans**
Haak, K, Elshout, J, van den Berg, A
- 79 **On the road to... somewhere? Change-blindness in event description tasks is informative about the interrelation between visual perception and language planning**
Marberg, I, Gerwien, J
- 80 **Perturbed cortical hierarchies in autism spectrum disorder: The case of high-level vision**
Vanmarcke, S, Noens, I, Steyaert, J, Wagemans, J
- 81 **Snakes as evolutionarily threat: Interaction between visual features and high level cognition**
Grassini, S, Railo, H, Valli, K, Revonsuo, A, Koivisto, M
- 82 **Does relevance of orientation content influence low-level cardinal attenuation?**
Jacobs, C, Petras, K, Vasilopoulou, M, Goffaux, V
- 83 **The role of perspective on the greenback illusion**
Shiina, K

Object recognition

- 84 **Using neural distance to predict reaction time for categorizing animacy, shape, and location**
Ritchie, B, Op de Beeck, H
- 85 **The functional state and mismatch work of magnocellular and parvocellular pathways in burnout**
Shoshina, I, Sergienko, R, Fedorova, E, Chausova, E, Gruzdev, A
- 86 **From faces to lobsters: Generalizing high-level adaptation aftereffects to alternative categories of natural objects**
Reindl, A
- 87 **Neuronal response types to impoverished images in the human inferior and medial occipital lobe**
Aiple, F, Blumberg, J, Kim, J, Reinacher, P, Brandt, A, Schulze-Bonhage, A, Kreiman, G
- 88 **Neural and behavioral benefits driven by facilitative effect of active exploration/passive observation of real 3-D novel objects depend on individual differences in vividness of imagery**
Sasaoka, T, Machizawa, M, Yamawaki, S

Perception & action

- 89 **On the response properties and range-dependence of manual estimation**
Kopiske, K, Domini, F
- 90 **The role of previous decision confidence in current speed-accuracy tradeoff for perceptual choice**
Desender, K, Wilming, N, Murphy, P, Verguts, T, Donner, TH
- 91 **The consequences of motor action and the social context determine the representation of peripersonal space**
Coello, Y, Quesque, F, Maria-Francesca, G, Shemakova, E
- 92 **The Trump effect: The effect of visual hand-size on movement behavior**
van Dam, L, Ferri, F
- 93 **Knowing where one will hit a moving object influences eye-head-hand coordination**
de la Malla, C, Rushton, S, Clark, K, Smeets, JBJ, Brenner, E
- 94 **How a visual representation and mechanism complexity influence reaching with a tool**
Xu, Q, Brenner, E, Baud-Bovy, G
- 95 **Investigating eye and head movement across different surface conditions**
Thomas, N, Lawson, R
- 96 **Predicting eye and head coordination while looking and pointing**
Sullivan, B, Ludwig, C, Gilchrist, I, Damen, D, Mayol-Cuevas, W
- 97 **Multi-modal serial dependence: No effect in audition, but vision survives auditory interference**
Lau, WK, Fischer, J, Maus, G
- 98 **No external focus advantage for novice in a mirror drawing task**
Chen, S, Jingling, L

Perceptual organisation, segmentation, & grouping

- 99 **General model of anomalous motion illusions and retinal image shifting factors**
Idesawa, M
- 100 **Hierarchical processing in tripole glass pattern perception**
Lin, Y, Chen, C
- 101 **Spatial heterogeneity within perception of bistable images**
Finlayson, NJ, Neacsu, V, Schwarzkopf, DS

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- 102 **The effects of gestalt grouping cues on synchrony perception: A powerful role for grouping by colour**
Bakurt, B, Clarke, A

Research methods

- 103 **We call it "DIRTI" (Disgust-RelaTed Images): Development and validation of a novel set of disgust-inducing pictures**
Haberkamp, A, Glombiewski, JA, Schmidt, F, Barke, A

Spatial vision

- 104 **Adaptation to hybrid images: "Pitting" amplitude against phase**
Rajendran, S, Saha, N, Bharadwaj, SR, Webster, MA
- 105 **A transcranial magnetic stimulation study of representational momentum and representational gravity: exploring the role of cortical areas V5/MT and TPJ**
De Sá Teixeira, N, Bosco, G, Lacquaniti, F, Delle Monache, S
- 106 **Estimating accuracy of spatial representations using virtual environments**
Saveleva, O, Menshikova, GY

Time perception & temporal processing

- 107 **Decoding integration and segregation over different time scales from the ongoing neural oscillations**
Ronconi, L, Oosterhof, NN, Bonmassar, C, Melcher, D
- 108 **Effects of color on time perception: Blue induces an overestimation of stimulus duration**
Thönes, S, Freiherr von Castell, C, Iflinger, J, Oberfeld-Twistel, D

Vision & art

- 109 **ERP responses to artworks, natural and uncomfortable images**
O'Hare, L
- 110 **Mobile eye tracking in the Royal Academy - analysing the interaction with abstract paintings**
Zanker, J, Stevanov, J, Holmes, T

TALKS 13:30–15:30

Controversy symposium, Auditorium

How does crowding limit object recognition?

Organizers: John Greenwood & Michael Herzog

Crowding fundamentally limits peripheral vision – objects that are identifiable in isolation become unidentifiable in clutter. Explanations range from 'bottom-up' pooling mechanisms to more feedback-based grouping approaches, mirroring broader debates in vision science. By examining the strengths and weaknesses of these approaches, we will begin to bridge the gap between them.

13:30 **Introduction:** Greenwood, JA

Crowding as 'pooling' – simplifying the visual field
Greenwood, JA

Reconsidering challenges to pooling models of crowding
Rosenholtz, R, Yu, D, Keshvari, S

The hierarchical sparse selection model accounts for crowding at multiple stages of visual processing
Whitney, D

How grouping determines crowding
Herzog, MH

15:10 **Panel discussion**

WEDNESDAY, 30 AUGUST

Symposium, Lecture Hall A

Perceptual estimation in a noisy world:

Novel insights from paradigms integrating perception, learning, and memory

Organizer: Maria Olkkonen

How do we form stable perceptual representations in an ever-varying world? What have learning and memory to do with it? This symposium brings together experts from different backgrounds who use a variety of cutting-edge methods to understand perception and its relationship to learning and memory from vision to echolocation.

- 13:30 **Introduction**
Olkkonen, M
 - 13:35 **Temporal integration of visual information across visual cortex**
Aguirre, GK
 - 13:55 **Is it blue or green? Investigating how priors for object color are learned from visual input**
Olkkonen, M, Saarela, T
 - 14:15 **Colour generalisation in chicks: What do chicks learn about two-dimensional colour variation?**
Scholtyssek, C, Osorio, DC, Baddeley, RJ
 - 14:35 **Perceptual learning of complex patterns**
Hussain, Z, Hashemi, A, Sekuler, A, Bennett, P
 - 14:55 **Learning new senses and sensory mappings: Humans, ideal observers, and ideal learners**
Nardini, M, Negen, J, Kiryakova, R, Beierholm, U, Thaler, L
 - 15:15 **General discussion**
-

Talk Session, Lecture Hall C

3D vision, depth, & binocular vision

Chair: Tushar Chauhan

- 13:30 **Single-cell study of higher-order disparity selectivity in the extrastriate cortex of the macaque brain**
Alizadeh, AM, Janssen, P
- 13:45 **A key role for proscription in perceptual integration**
Rideaux, R, Welchman, A
- 14:00 **Monocular deprivation affects BOLD responses and spatial frequency tuning as measured with ultra-high field MR in adult humans**
Kurzawski, J, Binda, P, Lunghi, C, Biagi, L, Tosetti, M, Morrone, MC
- 14:15 **Depth perception from ocular differences in input contrast**
Zhaoping, L
- 14:30 **A pupil near response to illusory nearness**
Mathôt, S, van der Mij, R
- 14:45 **Continuous flash suppression is strongly tuned for low temporal frequencies and high spatial frequencies**
Alais, D, Han, S, Lunghi, C
- 15:00 **Mechanisms of stereopsis in the praying mantis**
Nityananda, V, Tarawneh, G, Read, J
- 15:15 **Learning binocular disparity selectivity through spike-timing dependent plasticity**
Chauhan, T, Masquelier, T, Montlibert, A, Cottureau, BR

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TALKS 16:00–17:00

Talk Session, Auditorium

Natural images & scene perception

Chair: Linda Henriksson

- 16:00 **The birth of a strong representation: Tracking the spatio-temporal neural trace of visual images**
Mullin, C, Mohsenzadeh, Y, Pantazis, D, Oliva, A
- 16:15 **Representation of visual-scene boundaries in the human occipital place area**
Henriksson, L, Mur, M, Kriegeskorte, N
- 16:30 **Lateral and ventral category-selective areas show a differential response to moving and static visual stimuli**
Pitcher, D, Ianni, G, Ungerleider, L
- 16:45 **Subjects only prefer to view a linear image when the dynamic range of the displayed image matches that of the original scene**
Kane, D, Hulusic, V, Valenzise, G, Zerman, E, Grimaldi, A, Bertalmío, M

Talk Session, Lecture Hall A

Perceptual learning

Chair: Christoph Teufel

- 16:00 **Set size manipulations reveal boundary conditions of learning of statistical properties of perceptual ensembles**
Kristjánsson, Á, Campana, G, Chetverikov, A
- 16:15 **Short-term expectation influences visual function via a dissociable combination of motor and perceptual biases**
Teufel, C
- 16:30 **No external feedback is needed for perceptual learning to occur in local and global orientation tasks**
Asher, J, Romei, V, Hibbard, PB
- 16:45 **Role of color in ocular dominance plasticity**
Hess, RF, Zhou, J, Reynaud, A, Kim, YJ, Mullen, KT

Talk Session, Lecture Hall C

Motion & time

Chair: Manuel Vidal

- 16:00 **Cortical origins of flash-lag effect distortions**
Vidal, M, Chemla, S, Chavane, F
- 16:15 **Surprise! Violations of predictive coding result in sped recurrent sampling, which can enhance objective sensitivity and distort time**
Arnold, D, Johnston, A
- 16:30 **Adaptation to the locomotion speed of point-light walkers**
Mather, G, Parsons, T
- 16:45 **Saccadic inhibition as an index of anticipation in a discrimination task**
Amit, R, Abeles, D, Carrasco, M, Yuval-Greenberg, S

POSTERS 17:00–18:00

3D vision, depth, binocular vision, rivalry

- 1 **A novel way to quantify non-stationary aspects of multi-stable perception**
Aleshin, S, Braun, J
- 2 **Sensitivity to binocular cues to motion-in-depth in adults with common impairments of binocular vision in childhood**
Maloney, RT, Kaestner, M, Bruce, A, Bloj, M, Harris, JM, Wade, AR
- 3 **Evaluation of the residual stereopsis following implantable Collamer lens implantation in patients with cataract-a pilot study**
Liu, H, Chu, H
- 4 **Perceived depth reversal in a motion parallax display with common motion**
Sakurai, K, Furukawa, S, Beaudot, W, Ono, H
- 5 **Perceived depth from disparity depends on inter-ocular contrast difference**
Chen, P, Chen, C
- 6 **Adaptation of depth ordering preferences during motion transparency**
Hwang, B, Schütz, AC
- 7 **Stimulus-response compatibility in depth: Comparison among depth cues**
Ohtsuka, S

Aging & development

- 8 **Right hemispheric specialization for faces in pre-reading children**
Lochy, A, de Heering, A, Rossion, B
- 9 **Changes to eye-hand coordination with healthy ageing**
O'Rielly, J, Ma-Wyatt, A
- 10 **Comparing the results of the application of moving and stationary sinusoidal gratings in the functionally assisted treatment of meridional amblyopia**
Kämpf, U, Rychkova, S, Muchamedjarow, F, Heim, E

Attention & visual search

- 11 **Sustained feature-based selective attention within one object modulates the steady-state visual evoked potential**
Brummerloh, B
- 12 **Consciousness at a price: The attentional blink is a cost of awareness**
Ophir, EA, Hesselmann, G, Lamy, D
- 13 **First Person Shooter (FPS) games enhance ability to ignore task-irrelevant information**
Nakagawa, T, Seya, Y, Shinoda, H
- 14 **A Bayesian model of intertrial effects in visual search**
Allenmark, F, Müller, HJ, Shi, Z
- 15 **Feature comprehensive Inhibition processes in distractor induced blindness**
Winther, G, Niedeggen, M
- 16 **Self-relevant cues preferentially enhance contrast perception for attended stimuli**
Visokomogilski, A, Sahraie, A, Golubickis, M, Macrae, N
- 17 **Pupil dilation reveals the timecourse of voluntary temporal attention**
Denison, R, Parker, J, Carrasco, M
- 18 **A saliency based scan path prediction model in free-viewing condition**
Okazaki, T, Kohama, T
- 19 **Not FLEXible enough: Exploring the temporal dynamics of attentional reallocations with the multiple object tracking paradigm**
Meyerhoff, HS, Papenmeier, F, Jahn, DG, Huff, M

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- 20 **Interacting with objects affects the allocation of attention in multiple-object tracking**
Frielink-Loing, A, Koning, A, van Lier, R
- 21 **Can you recognize two words at once?**
White, A, Palmer, J, Boynton, G
- 22 **Control of spatial attention in bright and dark environments**
Kimura, T, Kinosada, Y
- 23 **Top-down modulation of gaze following in social contexts**
Perez, J, Müller, HJ, Wykowska, A
- 24 **Neuropsychological assessment of visual-cognitive processing capabilities with the virtual reality device HTC Vive**
Foerster, RM, Poth, CH, Behler, C, Botsch, M, Schneider, WX
- 25 **Detailed changes in global functional connectivity during attentional tracking**
Dornas, JV, Braun, J
- 26 **Subtle eye movements reveal the temporal dynamics of preparing for visual search**
Solis, KO, van Loon, A, Olivers, CNL
- 27 **Temporal integration and spatial attention**
Hochmitz, I, Yeshurun, Y

Colour vision

- 28 **How well do the Munsell and the natural colour systems describe the colours of natural scenes?**
Pastilha, RC, Linhares, JMM, Rodrigues, AIC, Nascimento, SMC
- 29 **Colour naming in natural images by colour-vision-deficient observers**
Hurlbert, A, Owen, A, Higson, D, Morris, G, LeCouteur-Bisson, T, Aston, S, Jordan, G

Computational vision

- 30 **The "Camouflage Machine" Part II: Optimising both colours and textures for camouflage and visibility**
Talas, L, Fennell, J, Baddeley, R, Cuthill, I, Scott-Samuel, N
- 31 **A spatial frequency spectral peakedness model predicts discrimination performance of regularity in dot patterns**
Protonotarios, ED, Landy, M, Johnston, A, Griffin, LD

Eye movements

- 32 **Saccadic peak velocity reveals attention holding for direct-gaze faces**
Dalmaso, M, Castelli, L, Galfano, G
- 33 **Not all short-latency saccades are express**
Coubard, O, Prevosto, V
- 34 **Modulatory effect of melanopsin activation on contrast sensitivity and pupil response**
Barrionuevo, P, Tripolone, MC, Cao, D
- 35 **Predictive remapping of visual features beyond saccadic targets**
He, T, Fritsche, M, de Lange, FP

Face perception

- 36 **Cross-cultural biases in categorising emotions expressed in British and Egyptian faces**
Helmy, M, Guo, K, Pollux, P
- 37 **Color assimilation by eye shadows occurs only on the face**
Kiriattani, Y, Takano, R, Ookubo, N
- 38 **Worth a look? Exploring the reward values of different face categories in children and adults**
Ewing, L, Papasavva, MP, Mares, I, Bates, K, Smith, ML

WEDNESDAY, 30 AUGUST

- 39 **Behavioural and neural correlates of distraction by faces**
Neumann, M, Viska, C, van Huis, S, Palermo, R
- 40 **The influence of other people on facial attractiveness judgments**
Mitrovic, A, Goller, J, Tinio, P, Leder, H
- 41 **Does our brain need awareness to “recognize” familiar faces?**
Zhu, W, Drewes, J
- 42 **Saccades toward faces are not only faster but also larger**
Guyader, N, Breuil, C, Chauvin, A, Muriel, B, Carole, P
- 43 **Deafness amplifies visual information sampling during face recognition**
Lao, J, Stoll, C, Dye, M, Pascalis, O, Caldara, R
- 44 **Why are we better at recognising moving faces? An eye-tracking study**
Bennetts, R, Lander, K, Sexton, L, Butcher, N
- 45 **Redundancy gains in face perception**
Vrancken, L, Germeys, F, Verfaillie, K

Lightness, brightness, & contrast

- 46 **Segmentation of image cues for perceived gloss of grapes in painted still lifes**
Di Cicco, F, Wijntjes, M, Dik, J, Stumpel, J, Pont, S
- 47 **Exponential filtering of the Hermann grid illusion and its variants**
Zeman, A, Ghebreab, S, Brooks, K
- 48 **Contrast, assimilation, and image segmentation in a cortical model of lightness and color computation**
Rudd, M
- 49 **Contrast based lexical decision in the parafovea**
Seelig, S, Risse, S
- 50 **Inhibitory surrounds of motion mechanisms revealed by continuous tracking**
Bhat, A, Cicchini, GM, Burr, DC, Morrone, MC

Memory & cognition

- 51 **Cognitive styles and visual signal detection task performance**
Volkova, N, Gusev, A
- 52 **Metacognitive approach to deficits in suppression mechanisms of unwanted thoughts or memories**
Szczepanowski, R
- 53 **Analysing the contents of visual short-term memory by classification images**
Kurki, I, Kaukinen, C, Hyvärinen, A, Saarinen, J
- 54 **Eye moves when memorizing overlapping scenes**
Dechterenko, F, Lukavsky, J
- 55 **Mona Lisa's happiness is by 35% in the eye of the beholder**
Liaci, E, Fisher, A, Heinrichs, M, Tebartz van Elst, L, Kornmeier, J

Motion

- 56 **Biological motion cues aid identification of self-motion from optic flow but not heading detection**
Riddell, H, Lappe, M
- 57 **Does the discrimination of speed depend on dedicated ‘comparator units’?**
Danilova, M, Mollon, J
- 58 **Investigation of high-frequency transcranial random noise stimulation (hf-tRNS) mechanism on visual motion perception: A stochastic resonance approach**
Ghin, F, Pavan, A, Mather, G
- 59 **A sparse coding model of MST can account for human heading perception in the presence of eye movements**
Beyeler, M, Dutt, N, Krichmar, JL

- 60 **Evaluation of a distortion induced motion aftereffect - psychophysics and modelling**
Habtegiorgis, SW, Javers, C, Rifai, K, Neumann, H, Wahl, S
- 61 **Effects of velocity- and position-based cues on horizontal vergence using different forms of motion in depth**
Giesel, M, Harris, JM, Yakovleva, A, Wilson, M, Bloj, M, Wade, AR, Norcia, AM
- 62 **Multisensory Integration of object sonification and self-motion cues for navigation in darkness**
Jicol, C, Esenkaya, T, Proulx, M, O'Neill, E, Petrini, K

63 -

Multisensory perception

- 64 **Tactile enumeration and brain plasticity in acalculia**
Cohen, ZZ, Arend, I, Yuen, K, Naparstek, S, Glikzman, Y, Veksler, R, Henik, A
- 65 **Where am I? Pointing to myself and body parts in virtual reality**
Van der Veer, A, Longo, M, Alsmith, A, Wong, HY, Bühlhoff, H, Mohler, BJ
- 66 **Cross-modal size-contrast illusion: Hearing sounds of increasing intensity leads to underestimation of object size by touch**
Uesaki, M, Ashida, H, Kitaoka, A, Pasqualotto, A
- 67 **The effect of visual content cues on auditory N1 and P2 ERPs**
Hochstrasser, D, Kim, J, Davis, C
- 68 **The facilitation and inhibition of vection by wind of hot and normal temperature**
Murata, K, Seno, T

Natural images & scene perception

- 69 **Memorable Pictures are more recognizable in ultra-fast RSVP**
Broers, N, Potter, MC, Nieuwenstein, MR, Busch, N
- 70 **Perceiving partly occluded objects: Structure versus knowledge**
Yun, X, Hazenberg, S, van Lier, R
- 71 **The planispheric optic array**
Van Doorn, A, Koenderink, J
- 72 **Matching peripheral scene appearance using deep features: Investigating image-specific variance and contributions of spatial attention**
Wallis, TSA, Funke, CM, Ecker, A, Gatys, LA, Wichmann, FA, Bethge, M

Object recognition

- 73 **Perceiving the shape of transparent objects**
Schlüter, N, Faul, F
- 74 **Object recognition with interference in children between 7 and 9 years**
Kiselev, S
- 75 **Disruptive camouflage: Multiple mechanisms interfere with object recognition**
Maguire, R, Scott-Samuel, N, Cuthill, I
- 76 **What does face pareidolia reveal about visual processing in the primate brain?**
Wardle, S, Seymour, K, Taubert, J
- 77 **A neurophysiological response to symmetry is formed through the integration of partial transient information over parieto-occipital regions.**
Rampono, G, Tatlidil, S, Adel, F, Bertamini, M, Makin, A

Perception & action

- 78 **Adjustable sensitivity to surrounding motion during goal-directed arm movements**
Brenner, E, van de Ven, S, van den Berg, R, Smeets, JB

- 79 **Visuomotor and motorvisual priming with different types of set level congruency: Evidence in support of ideomotor theory, and the Planning and Control Model (PCM)**
Thomaschke, R, Miall, RC, Ruess, M, Mehta, PR, Hopkins, B
- 80 **Gesture and outcome processing during the recognition of actions among distractors: Evidence from eyetracking**
Décroix, J, Kalénine, S
- 81 **Visual mismatch negativity and fMRI signal adaptation correlate in the occipital-temporal cortex**
Amado, C, Stoyanova, P, Kovács, G
- 82 **Poor vision is sufficient to establish size constancy in the newly sighted**
Andres, E, McKyton, A, Ben-Zion, I, Zohary, E
- 83 **Decision confidence and motivation are differently associated with task strategy during perceptual decision-making**
Kawaguchi K, Seillier, L, Nienborg, H
- 84 **Decision to feel sense of agency**
Kulieva, A, Kuvaldina, M
- 85 **Modulation of tactile suppression through visual information**
Gertz, H, Voudouris, D, Fiehler, K
- 86 **Towards improvement of perception of MRI/CT images as 3D geometry**
Girbacia, F, Girbacia, T
- 87 **Preparatory brain activity in time-based expectations**
Volberg, G, Thomaschke, R

Perceptual learning

- 88 **Is there an effect on exercise on human adult ocular dominance plasticity?**
Finn, EA, Zhou, J, Baldwin, A, Reynaud, A, Hess, RF
- 89 **Is reading words more effective in improving peripheral reading speed than recognizing letters?**
Yu, D

Perceptual organisation, segmentation, & grouping

- 90 **Can organization into a configuration take place in the absence of visual awareness?**
Devyatko, D, Sabary, S, Kimchi, R
- 91 **Symmetry perception for patterns defined by colour and/or luminance**
Martinovic, J, Makin, A, Bertamini, M, Angelescu, I
- 92 **Effects of context on the perception of animacy and intentionality**
Parovel, G, Guidi, S, Kreß, K
- 93 **Investigating the relationship between symmetry and closure using contour integration tasks**
Subri, NS, Dickinson, C, Gowen, E
- 94 **Does relevance shape individual differences in local/global perception of ambiguous motion displays?**
Boeykens, C, Moors, P, Wagemans, J
- 95 **The effect of corrupted feedback on perceptual inference**
Varrier, R, Guggenmos, M, Sterzer, P
- 96 **Shape perception generate from first sensory prediction then background inhibition: A MEG study**
Liu, L, Luo, H

Research methods

- 97 **Estimating variability and accuracy in remote mode infant eye tracking**
Schlegelmilch, K, Wertz, AE
- 98 **On estimating within-word landing positions**
Chandra, J, Krügel, A, Engbert, R
- 99 **Research on translational medicine of binocular visual function evaluation in strabismus**
Feng, X, Chu, H
- 100 **Looping in the pupil: Endogenous pupil oscillations provide a biomarker of optic neuritis**
Lorenceau, J, Ajasse, S, Lamirel, C
- 101 **Confidence as a diagnostic tool for perceptual aftereffects**
Gallagher, R, Arnold, D
- 102 **stimBOLD: Towards a complete forward prediction from visual stimulus to BOLD**
Schira, M, Aquino, K, Breakspear, M, Robinson, P

Spatial vision

- 103 **SNARC effect & visual illusions: Do phenomenal magnitudes equate physical magnitudes?**
Prpic, V, Soranzo, A, Fantoni, C, Galmonte, A, Murgia, M, Agostini, T
- 104 **The eggs illusion: Inducing factors of an illusory shape deformation**
Qian, K
- 105 **SNARC flexibility is explained by the semantic congruity effect**
Baldassi, G, Murgia, M, Agostini, T, Prpic, V, Fantoni, C

Time perception & temporal processing

- 106 **The effect of the symbolic meaning of speed on time to contact**
Mioni, G, Battaglini, L

Vision & art

- ~~107~~ **Images from the darkside: On the psychology and aesthetics of blind art**
Teutenberg, T
- 108 **Eye tracking during viewing photos for visual attention questions in talent exams in photography departments**
Bilgiseren, O, Or, KH
- 109 **Kandinsky or me? How free is the eye of the beholder in abstract art?**
Braun, D, Dörschner, K
- 110 **Pupil constriction reflects not only facial attractiveness, but also appraisal evaluation for natural scenes**
Liao, H, Kashino, M, Shimojo, S

KEYNOTE 18:30–20:00

Auditorium

Rank Prize lecture: *Visual material perception*

Speaker: *Shin'ya Nishida* | NTT Communication Science Laboratories, Japan

Sponsor: The Rank foundation

THURSDAY AT A GLANCE

09:00–11:00 h

Auditorium: Talk session 'Visual search'

Hall A: Symposium 'Binocular vision in a 3D world'

Hall C: Symposium 'Seeing cells'

11:00–11:30 h Coffee break

11:00–12:30 h

Poster Session

12:30–13:30 h Lunch break with

Business meeting – Open to everyone! – at the Auditorium

The Business Meeting is open to everyone, and you should join us if you can! As every year at the meeting, we have a set of agenda items. First, we will give a final report on this year's meeting including the number of registrations and abstract submissions, the budget, etc. We will also use this opportunity to introduce the whole team, thank our helpers and sponsors. Second, the organizers of next year's ECVP will briefly present their plans and progress. Third, we will accept any proposals for ECVP 2020 and ECVP 2021, and allow each proponent to contribute a brief presentation. If you would like to make a proposal yourself (and bring ECVP to your home!), it would be great if you could let us know before the business meeting. Finally, we will raise and discuss other open issues and may invite the audience to put other items up for discussion.

(grab your lunch already during the Poster Session if you are planning to attend the Business Meeting)

13:30–15:30 h

Auditorium: Controversy symposium – Special 'Thinking about seeing'

Hall A: Symposium 'Global image structure'

Hall C: Talk session 'Face recognition'

15:30–16:00 h Coffee break

16:00–17:00 h

Auditorium: Talks session 'Bistability'

Hall A: Talk session 'Eye movements: High-level'

Hall C: Talk session 'Face perception'

17:00–17:30 h

Auditorium: Closing

THURSDAY, 31 AUGUST

TALKS 9:00–11:00

Talk Session, Auditorium

Visual search

Chair: Anna Nowakowska

- 9:00 **Statistical regularities modulate attentional capture**
Theeuwes, J, Wang, B
- 9:15 **Dwelling, and rescanning, and not only skipping of distractors explain search efficiency differences**
Horstmann, G
- 9:30 **Human eye movements display target features during search**
Rothkegel, LOM, Trukenbrod, HA, Schütt, HH, Wichmann, FA, Engbert, R
- 9:45 **Neural timeline of contextual guidance facilitating visual search in natural scenes**
Das, K, Chowdhury, AS, Giri, B, Chakravarty, S
- 10:00 **Practice with visual search in simulated hemianopia does not lead to the development of optimal search strategies**
Nowakowska, A, Clarke, ADF, Sahraie, A, Hunt, AR
- 10:15 **Simulating foraging in the wild using an iPad**
Thornton, IM, Kniestedt, I, Camilleri, E, Maureira, MG, Kristjánsson, Á, Prpic, V
- 10:30 **Lack of free choice reveals the cost of multiple-target search within and across feature dimensions**
Ort, E, Fahrenfort, JJ, Olivers, CNL
- 10:45 **Stable visual search strategies within but not between visual search paradigms**
Clarke ADF, Irons J, Rigitano C, Leber A, Hunt AR

Symposium, Lecture Hall A

Binocular vision in a 3D world: Psychophysics, neurophysiology and neuroimaging

Organizers: Andrew Parker & Andrew Welchman

The co-ordinated use of our two eyes gives direct access to the three-dimensional structure of the scene in front of us, delivering stereoscopic vision. Yet the challenge faced by the brain is considerable, effectively requiring neural mechanisms that perform perceptual inference. Speakers from different perspectives will outline recent progress in understanding binocular vision.

- 9:00 **How is binocular disparity information used for depth perception?**
Harris, JM
- 9:20 **Sensory integration in visual cortex develops late in childhood**
Dekker, TM, Ban, H, Van den Velde, B, Sereno, M, Welchman, A, Nardini, M
- 9:40 **Stereopsis from oriented lines**
Mamassian, P, Ptukha, A
- 10:00 **What are the local computations that support depth?**
Read, J, Henriksen, S, Butts, D, Cumming, B
- 10:20 **Ocular dominance plasticity in V1 of adult humans**
Morrone, C
- 10:40 **Neural signals dynamics for the perception of stereo depth in primates**
Krug, K, Wasmuht, D, Cicmil, N, Parker, A

THURSDAY, 31 AUGUST

Symposium, Lecture Hall C

Seeing cells: Linking individual photoreceptor function to visual perception

Organizers: Wolf Harmening & William S. Tuten

We team up with physiologists and psychophysicists to highlight current research in high-resolution, cell-resolved vision testing. Topics span the areas of light detection, spatial vision, post-receptoral signal integration and retinal circuitry, and color perception. Our goal is to better understand the link between the neuronal structures that mediate visual information and the rich visual percepts they create.

- 9:00 **Intrinsic cone signals evoked with photo-stimulation**
Hüttmann, G, Spahr, H, Pfäffle, C, Sudkamp, H, Franke, G, Hillmann, D
- 9:20 **Cell-resolved retinal imaging and function testing**
Baraas, RC, Pedersen, HR, Gilson, SJ
- 9:40 **Vision at its sensitivity limit: Linking retinal circuit function with behavior**
Smeds, L, Takeshita, D, Turunen, T, Tiihonen, J, Ala-Laurila, P
- 10:00 **Variability in threshold and summation among human cone photoreceptors**
Harmening, WM, Bruce, KS, Tuten, WS, Roorda, A, Sincich, LC
- 10:20 **A virtual microscope for retinal bipolar cells: Reconstructing the bipolar cell layer by analyzing ganglion cell responses to light**
Gollisch, T
- 10:40 **Color sensations elicited by individual cones**
Sabesan, R

POSTERS 11:00–12:30

3D Vision, depth, binocular vision, rivalry

- 1 **Interocular correlation sensitivity and its relationship with stereopsis**
Reynaud, A, Hess, RF
- 2 **Assessing the perception of egocentric distance and pictorial depth in strabismus**
Zlatkute, G, Delabastida, CS, Vishwanath, D
- 3 **Size constancy in consumer virtual reality**
Hornsey, R, Hibbard, PB, Scarfe, P
- 4 **Out of sight, out of mind: Complete occlusion destabilizes moving multi-stable structure-from-motion displays**
Pastukhov, A, Prasch, J, Carbon, CC
- 5 **3D motion**
Héjja-Brichard, Y, Rima, S, Durand, J, Cottureau, BR
- 6 **Disparity, parallax and perspective in the perception of natural scenes**
Rogers, B
- 7 **Priming effects depend on relative stimulus strength during continuous flash suppression**
Valuch, C, Mattler, U
- 8 **Modification of stereoscopic depth scaling by reaching movement and its visual feedback**
Shigemasa, H, Yamane, S
- 9 **Defocusing flankers in real depth reduces crowding**
Eberhardt, LV, Huckauf, A
- 10 **Mask spatial density determines optimal masking frequency**
Drewes, J, Zhu, W, Melcher, D

Aging & development

- 11 **Investigating interactions between spatial and sustained attention in young and older adults**
Maerker, G, Learmonth, G, Thut, G, Harvey, M
- 12 **Children's estimations of object size at varying distances: A meta-analysis**
Granrud, C, Kavšek, M
- 13 **Hybrid (combined visual and memory) search in aging**
Wiegand, I, Wolfe, J
- 14 **Is scene and face perception preserved in the central visual field of people with glaucoma?**
Roux-Sibilon, A, Rutgé, F, Aptel, F, Attye, A, Guyader, N, Boucart, M, Chiquet, C, Peyrin, C
- 15 **Disturbance levels of different noise types: A study with young and elderly observers**
Seybold, T, Pasha, A, Schwethelm, P

Applied vision

- 16 **What scroll can teach us about web users?**
Milisavljevic, A, Doré-Mazars, K, Gosselin, B, Mancas, M, Petermann, C
- 17 **Suprathreshold contrast discrimination in migraine**
Aldrich, A, Hibbard, PB, Wilkins, A
- 18 **Retinal dysfunction of contrast processing in depressive disorder**
Friedel, E, Bach, M, Tebartz van Elst, L, Bubl, E
- 19 **Predictors of motion sickness in women**
Hemmerich, WA, Shahal, A, Oftring, CA, Hecht, H

Attention & visual search

- 20 **Is the attentional spotlight asymmetrical?**
Thomas, N, Nicholls, M
- 21 **What limits visual search for feature conjunctions?**
Poder, E
- 22 **Learning to shield visual search from prominent distractors**
Sauter, M, Liesefeld, H, Müller, HJ
- 23 **Captured by movement: The effect of motion on transient attention**
van Tongeren, I, Crowe, E, Kent, C, Holcombe, A
- 24 **Study of visual search in 3D space using virtual reality**
Mathur, AS, Majumdar, R, Ghose, T
- 25 **High test-retest reliabilities of attention capture effects as revealed by linear mixed models**
Weichselbaum, H, Huber-Huber, C, Ansorge, U
- 26 **Common or independent attentional maps across modalities? An investigation into the curvature of concurrent eye and hand movements**
Nissens, T, Fiehler, K
- 27 **Spatial attention and eye movements: A diffusion model study**
Kulikova, A, MacInnes, WJ
- 28 **Attentional capture and voluntary orienting modulation: An ERP study**
García-Ogueta, MI, Mayoral, P
- 29 **The role of motor processing in position monitoring**
Howard, C, Boulton, H, Brown, E, Arnold, C, Belmonte, M, Mitra, S
- 30 **Dynamic change of spatial attention measured by event related steady state visual evoked potential**
Shioiri, S, Honjyo, H, Kashiwase, Y, Miura, T, Matsumiya, K, Kuriki, I

- 31 **Subliminal spatial word cues trigger visual attention shifts: Evidence from event-related potentials in visual search**
Baier, D, Ansorge, U
- 32 **Preparatory orienting of spatial attention reduces feature-based contingent capture**
Berggren, N, Eimer, M
- 33 **Distortions of event perception by stimulus contrast: The role of attention**
Akyurek, EG

Colour vision

- 34 **The impact of the black and white stylization of video advertisements on emotional impression**
Pavlova, NV, Pavlov, YG

Computational vision

- 35 **Modelling the design of efficient animal warning signals**
Penacchio, O, Harris, JM

Eye movements

- 36 **The stability of preferred retinal locus for fixation across different time scales**
Kilpeläinen, M, Ratnam, K, Roorda, A
- 37 **The relocation of the preferred retinal locus under progression of a central scotoma**
Bernal, MB, Rifai, K, Wahl, S
- 38 **A mathematical model of microsaccade properties**
Oku, S, Kohama, T
- 39 **Combinatorial processes of enumeration and arithmetic are evident in patterns of eye movements and response times for number stimuli with varied spatial grouping**
Forte, J, Reeve, R
- 40 **Revealing the impairments of thalamic lesions using a neuro-computational model of saccadic suppression of displacement**
Bergelt, J
- 41 **No exception from Bayes' rule: There is a range effect in the saccadic system**
Krügel, A
- 42 **The influence of language proficiency on visual search in letter charts**
Izmalkova, A, Blinnikova, I
- 43 **Do prototypical hues influence viewing behavior in natural scenes?**
Schiller, F, Einhäuser, W, Gegenfurtner, KR
- 44 **Cross-saccadic active vision from iconic to working memory**
Yeonan-Kim, J
- 45 **Separating fixations driven by deep and low-level features**
Kümmerer, M, Wallis, TSA, Gatys, LA, Bethge, M
- 46 **Faces elicit differential eye movements depending on emotional expression, in the absence of awareness**
Vetter, P, Badde, S, Phelps, E, Carrasco, M
- 47 **Smooth pursuit and saccades work to maintain tracking during naturalistic ball bouncing**
Meso, AI, Mahabeer, A, De Vai, R, Hills, PJ
- 48 **Intra-saccadic large-field motion modulates the perception of trans-saccadic apparent motion**
Schweitzer, R, Rolfs, M

Face perception

- 49 **Body size adaptation for bodies and faces, but not across categories**
Ambroziak, K, Azañón, E, Longo, M
- 50 **Integration of expressive facial features**
Salmela, V, Kilpeläinen, M, Saarela, T
- 51 **Visual awareness of body posture contexts is necessary to influence categorisation of facial emotional**
Gray, K, Cook, R
- 52 **Support for the prediction hypothesis of visual stability: Invalid peripheral preview delays the fixation-locked N170 face inversion effect**
Huber-Huber, C, Hickey, C, Melcher, D
- 53 **Effects of lip color on perceived lightness of facial skin depend on holistic processing of faces**
Morikawa, K, Kobayashi, Y, Matsushita, S
- 54 **Face description abilities predict line-up performance**
Vanootighem, V
- 55 **Ultra-coarse human face detection in a dynamic visual sequence**
Quek, G, Liu-Shuang, J, Goffaux, V, Rossion, B
- 56 **Similarity asymmetries in face image comparison**
White, D, Wayne, T
- 57 **Decoding categories shared by the face and body**
Foster, C, Zhao, M, Romero, J, Black, M, Mohler, BJ, Bartels, A, Bühlhoff, I

Lightness, brightness, & contrast

- 58 **Modulation of oscillatory activity and synchrony in V1 as a function of stimulus features**
Dăbâcan, A, Barzan, H, Gheorghiu, M, Mureşan, R
- 59 **The perception of noise in digital video: Influence of bandwidth**
Seybold, T, Pasha, A, Conrady, S, Blothner, J

Memory & cognition

- 60 **The role of alpha oscillations in memory maintenance and distractor inhibition**
Schröder, SC, Ball, F, Busch, NA
- 61 **Tracking the content of visual working memory in EEG**
Wolff, M, Jochim, J, Akyürek, E, Stokes, M
- 62 **Image statistics and visual working memory of glossiness**
Tsuda, H, Saiki, J

Motion

- 63 **Examining the effects of contrast and speed on motion discrimination for coarse and fine-scale compound stimuli**
Luna del Valle, R, Serrano-Pedraza, I
- 64 **Possible mislocalisation of a moving flickering target**
Ashida, H, Takaoka, MA, Scott-Samuel, N
- 65 **Testing predictive coding accounts: Delusion proneness is linked to a reduced usage of prior information in perceptual inference**
Stuke, H, Weilhhammer, V, Schmack, K
- 66 ---
- 67 **Moves like "Maluma": Effects of speed and path shape on motion-sound correspondences**
Stefanovic, M

Multisensory perception

- 68 **Auditory facilitation of visual speeded detection in the entire visual field**
Sato, Y, Watanabe, T, Satoh, S
- 69 **Effects of executive working memory performance on inattentional deafness**
Zaitso, M, Kawashima, T, Matsumoto, E
- 70 **Attention to pain stimuli affects the visual perception in proportion to the intensity of pain stimuli**
Do, J, Lee, H, Kim, D, Kim, YJ
- 71 **The ABBI kit: Optimization of experimental audio-motor assessment of visually impaired people**
Martolini, C, Cuppone, AV, Cappagli, G, Gori, M

Natural images & scene perception

- 72 **The perception of urban vandalism: An eye-tracking study**
Zlokazov, KV, Pavlov, YG
- 73 **The contribution of color to scene gist recognition at large visual eccentricities: Low level or higher order influence?**
Beugnet, C, Loschky, L, Szaffarczyk, S, Boucart, M

Object recognition

- 74 **Statistical perception to visual covariation: Feature-specificity and its robustness against attentional strategy**
Banno, H, Imanaka, K
- 75 **Exposure duration influences holistic vs. part-based learning in visual object recognition**
Devillez, H, Rohrlich, J, Sheinberg, D, O'Reilly, R, Curran, T

Perception & action

- 76 **Discrimination judgments alter the appearance of visual stimuli**
Fritsche, M, de Lange, FP
- 77 **Prime competition in fast motor responses: Response activation and inhibition in a sequential-prime paradigm**
Wolkersdorfer, M, Leist, L, Wegner, T, Hellrigel, S, Scülfort, S, Panis, S, Schmidt, T
- 78 **Impairment of automatic "vision for action" functions in the newly-sighted, following prolonged visual deprivation**
McKyton, A, Ben-Zion, I, Zohary, E
- 79 **Action recognition following early-onset prolonged visual deprivation**
Schreiber, C, McKyton, A, Ben-Zion, I, Zohary, E
- 80 **Steering a car to intercept a moving target: Can people learn better interception solution?**
Zhao, H, Straub, D, Rothkopf, C
- 81 **Serotonin decreases the gain of the visual responses in awake macaque V1**
Seillier, L, Lorenz, C, Kawaguchi, K, Ott, T, Nieder, A, Pourriahi, P, Nienborg, H
- 82 **A shared numerical representation for action and perception in blind and sighted individuals**
Togoli, I, Arrighi, R, Anobile, G, Crollen, V, Collignon, O

Perceptual organisation, segmentation, & grouping

- 83 **Is access to low-level features suppressed or enhanced by high-level representations? Preliminary data from a local shape discrimination study using two-tone images**
Van Overwalle, J, Van de Cruys, S, Pędziwiatr, M, Wagemans, J, Teufel, C
- 84 **The topographic representation of global object perception in human visual cortex**
Stoll, S, Finlayson, NJ, Schwarzkopf, DS

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- 85 **How do we count at a glance?**
Murray, R, DeSimone, K, Kim, M
- 86 **The influence different patterns of orientation change have on performance in texture segmentation and detection tasks**
Keeble, D, Sidhu, S
- 87 **Emergent features in the crowding zone**
Melnik, N, Coates, DR, Sayim, B
- 88 **Contour integration with nonlinear connectors**
Persike, M, Meinhardt, G

Research methods

- 89 **LabVanced: Making professional online-studies simple**
Finger, H, Diekamp, D, Goeke, C, König, P
- 90 **Constricting hallucinatory feature-space for the psychophysical investigation of visual hallucinations**
Rogers, S, Wicken, M, Pearson, J
- 91 **High contrast stimulation with an optimized adaptive optics SLO for cellular level visual psychophysics**
Domdei, N, Domdei, L, Reiniger, JL, Holz, F, Görlitz, A, Harmening, W
- 92 **Photoreceptor-resolved visual psychophysics with and without adaptive optics**
Reiniger, JL, Sheehy, C, Domdei, N, Holz, F, Roorda, A, Harmening, W

Spatial vision

- 93 **Comparison of scotopic and photopic visual acuity and hyperacuity**
Freundlieb, P, Bach, M, Thieme, H, Hoffmann, MB
- 94 **Investigation of scotopic vision with multifocal evoked potentials (mfVEPs)**
Muranyi, D, Wolff, A, Thieme, H, Hoffmann, MB
- 95 **The role of focal attention in foveal crowding and its relationship with reading in the lifespan**
Daini, R, Albonico, A, Facchin, A, Bricolo, E, Martelli, M
- 96 **ECoG signals from macaque primary visual cortex: High-precision decoding of stimulus location from single-trial responses.**
Fischer, B, Kreiter, AK, Wegener, D

Time perception & temporal processing

- 97 **Quasi-continuous unconscious processing precedes discrete conscious perception**
Herzog, MH, Doerig, A
- 98 **Crowding in the time domain**
Yeshurun, Y, Tkacz-Domb, S
- 99 **Perimetry with a time-varying background luminance**
João, C, Scanferla, L, Jansonius, N

Vision & art

- 100 **What we like before we know better: Infant preferences in the absence of semantics**
Vessel, E, Burakowski, LM, Slone, LK, Shuwairi, SM, Johnson, SP
- 101 **Eye tracking during viewing some famous photos**
Or, KH
- 102 ---
- 103 **Objective and subjective complexity-related measures and preferences for neatly organized compositions**
Van Geert, E, Wagemans, J

THURSDAY, 31 AUGUST

TALKS 13:30–15:30

Controversy symposium – Special, Auditorium

Thinking about Seeing

Organizer: Brian Rogers

As researchers in perception, we seldom pause to think about what is it that we are trying to explain. Is it perceptual appearance – why things look as they do – or is it how perceptual information guides action? Which methods are most suitable and what is the appropriate level of explanation?

With panellists Jan Koenderink, Alan Gilchrist, Susana Martinez-Conde, and Dejan Todorovic.

Symposium, Lecture Hall A

Neuro-computational mechanisms to reflect global image structure: From boundary detection to figure-ground organization and shape detection

Organizers: Naoki Kogo & Matthew Self

How does global contextual information influence our perception? In this symposium, we will have in-depth discussions of plausible neural mechanisms for perceptual organization and attempt to integrate physiological data into a common framework, as well as addressing unsolved problems in the field. The symposium is accessible for a general audience.

- 13:30 **Neural mechanism of long-range interaction is the key to link figure-ground, shape and illusory surface perception**
Kogo, N
- 13:48 **Figure-ground organization and the emergence of proto-objects in the visual cortex**
von der Heydt, R
- 14:06 **Solving border ownership: Insights from V4 responses to isolated and occluded shapes**
Pasupathy, A
- 14:24 **Using feedback to segregate the visual scene: Excitation and suppression of responses in V1 through border-ownership tuned cells in higher visual areas.**
Self, M
- 14:42 **The global-to-local conundrum underlying border ownership: The complexity of connections**
Zucker, SW
- 15:00 **General discussion**

Talk Session, Lecture Hall C

Face recognition

Chair: Bruno Rossion

- 13:30 **An ecological characterisation of face recognition using Game of Thrones**
Devue, C, Wride, A, Barsics, C, Grimshaw, G
- 13:45 **Of priming and predictions: Neuroimaging and TMS evidences of the predictive interpretation of priming**
Kovács, G, Amado, C, Ambrus, GG, Kovacs, P, Krohn, L, Mayer, R, Trapp, S
- 14:00 **Face experts? Assessing passport-matching performance in police officers and novices**
Wirth BE, Carbon CC

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- 14:15 **Critical features of face recognition in humans and machines**
Abudarham, N, Shkiller, L, Yovel, G
- 14:30 **Understanding viewpoint generalization in the human face-processing network: From neurons to voxels and back again**
Ramírez, FM
- 14:45 **Expressive faces confuse identity recognition**
Redfern, A, Benton, C
- 15:00 **Mapping fast and automatic visual categorization of faces in the human ventral occipito-temporal cortex with intracerebral recordings**
Rossion, B, Jacques, C, Liu-Shuang, J, Brissart, H, Colnat-Coulbois, S, Maillard, L, Jonas J
- 15:15 **Fast periodic visual stimulation (FPVS) identifies highly reliable EEG markers of discrimination between genuine and posed facial expressions**
Dawel, A, Mewton, P, McKone, E, Dzhelyova, M, Rossion, B, Apthorp, D

TALKS 16:00–17:00

Talk Session, Auditorium

Bistable perception

Chair: *Bradley Jack*

- 16:00 **FMRI responses in inferior frontal cortex are associated with prediction error signals in bistable perception**
Weilhammer, V, Stuke, H, Hesselmann, G, Sterzer, P, Schmack, K
- 16:15 **Brain activity from stimuli that are not perceived: Visual mismatch negativity during binocular rivalry suppression**
Jack, B, Widmann, A, O'Shea, R, Schröger, E, Roeber, U
- 16:30 **When predictive coding impedes perception**
Joos, E, Kornmeier, J
- 16:45 **Decoding the contents of visual awareness from unstimulated regions of early retinotopic cortex**
Sterzer, P, Wilbertz, G, Müller, A, van Kemenade, B

Talk Session, Lecture Hall A

Eye movements: High-level

Chair: *Alessandro Grillini*

- 16:00 **Holistic and analytic perception of facial expressions: Eye movements**
Krivykh, P, Kopachevskaya, M, Menshikova, GY
- 16:15 **Screening for visual field defects by quantifying the spatio-temporal properties of eye-movements**
Grillini, A, Ombelet, D, Jansonius, N, Cornelissen, F
- 16:30 **Crowding, visual span and reading speed in adults with dyslexia**
Castet, É, Denis-Noël, A, Aguilar, C, Colé, P, Pattamadilok, C
- 16:45 **Cognitive load effects on social looking in an authentic context**
Risko, E, Kingstone, A

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Talk Session, Lecture Hall C

Face perception

Chair: Meike Ramon

- 16:00 **How do faces and bodies become special? Electrophysiological evidence for the emergence of face- and body-related cortical processing in the first 14 months of life**
Gillmeister, H, Rigato, S
- 16:15 **Reinterpreting face aftereffects**
Emery, KJ, Jeffery, L, McKone, E, Rhodes, G, Webster, MA
- 16:30 **Top-down effects modulate rapid saccadic reaction times to personally familiar faces**
Ramon, M, Sokhn, N, Caldara, R
- 16:45 **Unravelling the neural coding of idiosyncratic fixation strategies for faces**
Stacchi, L, Ramon, M, Lao, J, Caldara, R

17:00 Closing, Auditorium

NOTES

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vision

Editor-in-Chief

Prof. Dr. Andrew Parker

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