

# Conference schedule

## Keynotes

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Auditorium Maximum (HS 33 - K.11.24)

### Sunday (18.00 - 19.00)

**On covert attention and presaccadic attention**

*Marisa Carrasco*

### Monday (9.00 - 10.00)

**An update of the functional role of the dorsal visual stream**

*Laure Pisella*

### Monday (17.00 - 18.00)

**Where (and when) next? How people view images of natural scenes**

*Ben Tatler*

### Tuesday (9.00 - 10.00)

**Eye movement studies of reading in special populations**

*Debra Titone*

### Wednesday (9.00 - 10.00)

**The roles of cortical areas in guiding eye movements during visual search**

*James Bisley*

### Thursday (17.30 - 18.30)

**The Interaction between vision and eye movements**

*Karl R. Gegenfurtner*

## Talks

### Monday, August 21<sup>st</sup>, 10.30 - 12.30

#### Symposium: Developmental eye tracking: Problems, solutions and applications of screen and head-mounted eye tracking

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Room 1 (HS 14 - M.10.12)

Convenor: Tim J. Smith

- 10.30     Assessing gaze data quality in a large multi-centre autism developmental cohort  
*Ana M. Portugal, Luke Mason & Tim J. Smith*
- 10.50     Gazepath: An eye-tracking analysis tool that accounts for individual differences and data quality  
*Daan van Renswoude, Maartje Raijmakers & Ingmar Visser*
- 11.10     Quantifying the microdynamics of attention during parent-child interaction: practicalities and insights  
*Nadia Neesgaard, Atsushi Senju & Tim J. Smith*
- 11.30     Head-mounted eye-tracking for studying infants' attention during naturalistic activities  
*Heather L. Kirkorian & Seung Heon Yoo*
- 11.50     Infants' naturalistic attention dynamics show similar patterns at different spatio-temporal scales  
*Samuel V. Wass, Kaili Clackson, Stani Georgieva & Victoria Leong*
- 12.10     Active Vision: What head-mounted eye tracking reveals about infants' active visual exploration  
*Chen Yu*

#### Thematic session: Saccade programming I

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Room 2 (HS 32 - K.11.23)

Chair: Lynn Huestegge

- 10.30     Fixation-related brain activations: emotional valence interacts with high and low-level image properties  
*Michał Kuniecki, Joanna Pilarczyk, Kinga Wołoszyn & Aleksandra Domagalik*
- 10.50     Learning sequences of eye movements: linking motor processing and cognition in the brain  
*Melanie R. Burke & Claudia C. Gonzalez*
- 11.10     Oculomotor dominance in dual tasking and the influence of stimulus-response modality mappings  
*Mareike A. Hoffmann, Aleks Pieczykolan & Lynn Huestegge*
- 11.30     Using Saccade Averaging to study Decision Making signals  
*Geoffrey Megardon & Petroc Sumner*
- 11.50     The necessity to choose causes effects of expected value  
*Christian Wolf, Anna Heuer, Anna Schubö & Alexander C. Schütz*
- 12.10     SERIA – A model for antisaccades  
*Eduardo A. Aponte, Dario Schoebi, Klaas E. Stephan & Jakob Heinze*
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**Special thematic session: Communication by gaze interaction I**


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**Room 3** (HS 28 - I.13.71)

Chair: Andreas Bulling &amp; Carlos H. Morimoto

- 10.30 Eye movement as material for interaction design (40 min)  
*Hans Gellersen*
- 11.10 "Here's looking at you, kid." Does he see pupil size changes?  
*Anke Huckauf, Christoph Strauch & Jan Ehlers*
- 11.30 Gaze-contingent Games for Neurocognitive Therapy: More than Meets the Eye?  
*Leanne Chukoskie, Jacqueline Nguyen & Jeanne Townsend*
- 11.50 Applicability of smooth-pursuit based gaze interaction for elderly users  
*Sarah-Christin Freytag, Stefan Ruff & Antje C. Venjakob*
- 12.10 Behavioral Analysis of Smooth Pursuit Eye Movements for Interaction  
*Argenis Ramirez-Gomez & Hans Gellersen*

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**Thematic session: Reading: Neural basis and binocular coordination**


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**Room 4** (HS 26 - I.13.65)

Chair: Hazel I. Blythe

- 10.30 Saccadic eye movements and neural activity associated with letter naming speed task manipulations  
*Noor Z. Al Dahhan, Donald C. Brien, John R. Kirby & Douglas P. Munoz*
- 10.50 The effects of cloze probability and semantic congruency on brain responses during natural reading: A fixation-related fMRI study  
*Sarah Schuster, Nicole A. Himmelstoß, Stefan Hawelka, Fabio Richlan, Martin Kronbichler & Florian Hutzler*
- 11.10 Reading fluency is associated with fixation related brain responses to reading comprehension in 12-year old typically reading children – findings from co-registered eye-tracking and EEG study  
*Otto Loberg, Jarkko Hautala, Jarmo A. Hämäläinen & Paavo H.T. Leppänen*
- 11.30 Changes in overall vergence demands affect binocular coordination during reading  
*Stephanie Jainta*
- 11.50 Binocular advantages for parafoveal processing in reading  
*Hazel I. Blythe, Mirela Nikolova, Stephanie Jainta & Simon P. Liversedge*
- 12.10 A new understanding of vergence within fixations, based on differences in the reading of Chinese and English  
*Richard Shillcock, Yi-ting Hsiao, Mateo Obregón, Hamutal Kreiner, Matthew A. J. Roberts & Scott McDonald*

## Monday, August 21<sup>st</sup>, 13.30 - 15.30

### Symposium: Using eye-tracking and pupillometry to study rhythmic processing in music and dance

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**Room 1** (HS 14 - M.10.12)

Convenors: Elke B. Lange & Lauren K. Fink

- 13.30 Eye Can't Dance; Entraining Saccadic Timing to Musical and Visual Beats  
*Jonathan P. Batten & Tim J. Smith*
- 13.50 Pupil dilation indexes the metrical hierarchy of unattended rhythmic violations  
*Atser Damsma & Hedderik van Rijn*
- 14.10 Predicting attention to auditory rhythms using a linear oscillator model and pupillometry  
*Lauren K. Fink, Joy J. Geng, Brian K. Hurley & Petr Janata*
- 14.30 The Eye-Time Span in Music Reading: Local Effects of Stimulus Complexity on "Looking Ahead"  
*Erkki Huovinen, Anna-Kaisa Ylitalo & Marjaana Puurtinen*
- 14.50 Guided eye movements made in response to dance  
*Matthew Woolhouse*
- 15.10 Eye-movement control and pupillary responses to complex auditory and visual stimuli (Panel discussion)

### Thematic session: Transsaccadic memory and integration

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**Room 2** (HS 32 - K.11.23)

Chair: Artem Belopolsky

- 13.30 Beyond the magic number four: Evidence for high-capacity, trans-saccadic, fragile memory and pre-attentive remapping  
*Paul Zerr, Surya Gayet, Kees Mulder, Ilja Sligte & Stefan Van der Stigchel*
- 13.50 Unifying the visual world across an eye-movement: Transsaccadic integration is unaffected by saccade landing position  
*Martijn Jan Schut, Nathan Van der Stoep & Stefan Van der Stigchel*
- 14.10 How quickly does the eye movement system register changes across saccades?  
*Jonathan van Leeuwen & Artem V. Belopolsky*
- 14.30 Trans-saccadic feature integration is contrast dependent  
*Lukasz Grzeczowski, Heiner Deubel & Martin Szinte*
- 14.50 Task-relevant objects compete for attention across saccades  
*Christian H. Poth & Werner X. Schneider*
- 15.10 Remapping of the global effect across saccades  
*Kiki Arkesteijn, Jeroen BJ Smeets, Mieke Donk & Artem V. Belopolsky*

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**Special thematic session: Communication by gaze interaction II**


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**Room 3** (HS 28 - I.13.71)

Chair: John P. Hansen &amp; Roman Bednarik

- 13.30 Gaze interaction using low-resolution images at 5 FPS  
*Carlos E.L. Elmadjian, Antonio Diaz-Tula, Fernando O. Aluani & Carlos H. Morimoto*
- 13.50 PSOVIS: An interactive tool for extracting post-saccadic oscillations from eye movement data  
*Diako Mardanbegi, Thomas Wilcockson, Baiqiang Xia, Hans Gellersen, Trevor Crawford & Peter Sawyer*
- 14.10 GazeBall: Leveraging Natural Gaze Behavior for Continuous Re-calibration in Gameplay  
*Argenis Ramirez-Gomez & Hans Gellersen*
- 14.30 Implicit Events in Virtual Reality: A New Concept for Eye-Based Interaction?  
*Teresa Hirzle, Jan Ehlers, Anke Huckauf & Enrico Rukzio*
- 14.50 COGAIN Association Meeting (40 min)

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**Thematic session: Reading: Spatially distributed processing**


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**Room 4** (HS 26 - I.13.65)

Chair: Sarah Risse

- 13.30 Two routes of parafoveal processing during reading: Eye movements suggest benefits and costs  
*Sarah Risse & Martin R. Vasilev*
- 13.50 Late interference by parafoveal difficulty in reading  
*Stefan Seelig & Sarah Risse*
- 14.10 Analyzing Sequential Dependencies between Fixation Durations with Linked Linear Mixed Models  
*Reinhold Kliegl, Sven Hohenstein & Hannes Matuschek*
- 14.30 What are the costs of degraded parafoveal previews during silent reading?  
*Bernhard Angele, Martin R. Vasilev, Timothy J. Slattery & Julie A. Kirkby*
- 14.50 Effects of font type on parafoveal letter identification in Russian  
*Svetlana Alexeeva, Aleksandra Dobrego & Alena Konina*
- 15.10 Orthographic, Morphological, and Semantic Parafoveal Processing in Arabic Reading: Evidence from the Boundary Paradigm  
*Ehab W. Hermena, Eida J. Juma, Ascensión Pagán, Maryam AlJassmi, Mercedes Sheen & Timothy R. Jordan*

## Tuesday, August 22<sup>nd</sup>, 10.30 - 12.30

### Symposium: Longitudinal research on eye movements in developing readers: What have we learned so far?

Room 1 (HS 14 - M.10.12)

Convenors: Johannes Meixner & Christian Vorstius

- 10.30 The development of eye movement control in reading: where do the eyes go?  
*Ralph Radach, Christian Vorstius & Christopher J. Lonigan*
- 10.50 Early development of oculomotor control in reading: a longitudinal eye tracking study from preschool age to fifth grade  
*Thomas Günther, Josefine Horbach, Wolfgang Scharke & Ralph Radach*
- 11.10 Foveal Processing Difficulty Modulates Perceptual Span Early in Reading Development  
*Johannes M. Meixner & Jochen Laubrock*
- 11.30 Comprehension in silent and oral sentence reading: Longitudinal evidence from developing readers  
*Christian Vorstius, Young-Suk Grace Kim & Ralph Radach*
- 11.50 The development of foveal eye movements in primary school: Findings from the Berlin DevTrack study  
*Sascha Schroeder, Simon Tiffin-Richards & Sarah Eilers*
- 12.10 General discussion

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**Thematic session: Clinical Research I**


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**Room 2** (HS 32 - K.11.23)

Chair: Andreas Sprenger

- 10.30 Implicit and explicit oculo-motor learning in Parkinson's disease and spinocerebellar ataxia  
*Andreas Sprenger, Annika Lasrich & Christoph Helmchen*
- 10.50 Visual exploration of emotional faces in schizophrenia using masks from the Japanese Noh theatre  
*Teresa Fasshauer, Andreas Sprenger, Karen Silling, Christopher Zeiser, Johanna Elisa Silberg, Anne Vosseler et al.*
- 11.10 Visual Behavior on Natural Static Images in Patients with Retinitis Pigmentosa  
*Ricardo R. Gameiro, Kristin Jünemann, Anika Wolff, Anne Herbig, Peter König & Michael Hoffmann*
- 11.30 Quantifying Traumatic Brain Injury impairments in scanning patterns of complex scenes  
*Nitzan Guy, Oryah Lancry & Yoni Pertzov*
- 11.50 Smooth pursuit disturbances in schizophrenia during free visual exploration of dynamic natural scenes  
*Johanna Elisa Silberg, Ioannis Agtzidis, Mikhail Startsev, Teresa Fasshauer, Karen Silling, Andreas Sprenger et al.*
- ~~12.10 Eye tracking live social interaction to capture gaze behavior of subclinical autism and social anxiety  
*Roy S. Hessels, Gijs A. Holleman, Tim H. W. Cornelissen, Ignace T. C. Hooge & Chantal Kemner* → moved to Clinical Research II (Thursday, 15.50)~~
- 12.10 Visual field diagnostics with eye tracking: development and neuropsychological testing of a new diagnostic tool  
*Michael Christian Leitner, Constanze Haslacher, Stefan Hawelka, Lorenzo Vignali, Sarah Schuster & Florian Hutzler*

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**Thematic session: Visual interfaces, robotics and virtual reality**


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**Room 3** (HS 28 - I.13.71)

Chair: Lucas Paletta

- 10.30 Smooth pursuit based mouse replacement: the GazeEverywhere system  
*Simon Schenk, Marc Dreiser, Philipp Tiefenbacher, Gerhard Rigoll & Michael Dorr*
- 10.50 Fixation-Related Potentials as a Measure for Cognitive Demand in Visual Tasks on Single Trial Level  
*Dennis Wobrock, Andrea Finke, Shirley Mey, Dirk Koester, Thomas Schack & Helge Ritter*
- ~~11.10 Gaze Contingent Control of Vergence, Yaw and Pitch of Robotic Eyes for Immersive Telepresence  
*Remi Cambuzat, Frédéric Elisei & Gérard Bailly* → moved to poster session II-93~~
- 11.30 Measurement of Situation Awareness in Collaborative Robotics Using Eye Movement Features  
*Lucas Paletta, Cornelia Murko & Amir Dini*
- 11.50 Siamese Convolutional Neural Networks for Appearance-Based Gaze Estimation  
*Helen Zhou, David Mayo & Scott Greenwald*
- 12.10 Joint visual working memory through implicit collaboration  
*Edwin S. Dalmaijer, Diederick C. Niehorster, Kenneth Holmqvist & Masud Husain*

**Thematic session: Scanpaths**

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**Room 4** (HS 26 - I.13.65)

Chair: Ralf Engbert

- 10.30 Disentangling fixation duration and saccadic planning using gaze dependent guided viewing  
*Benedikt V. Ehinger, Lilli Kaufhold & Peter König*
- 10.50 The early central fixation bias in scene viewing: Experimental manipulation and modeling  
*Lars O. M. Rothkegel, Hans A. Trukenbrod, Heiko H. Schütt, Felix A. Wichmann & Ralf Engbert*
- 11.10 Likelihood-based Parameter Estimation and Comparison of Dynamical Eye Movement Models  
*Heiko H. Schütt, Lars O. M. Rothkegel, Hans A. Trukenbrod, Sebastian Reich, Felix A. Wichmann & Ralf Engbert*
- 11.30 Refixation strategies for memory encoding in free viewing  
*Radha N. Meghanathan, Andrey R. Nikolaev & Cees van Leeuwen*
- 11.50 Modelling saccade directions with circular distributions  
*Ingmar Visser, Maartje Raijmakers & Daan van Renswoude*
- 12.10 Considering, rather than restricting eye movement characteristics in Fixation Related Potentials: an application of the rERP framework  
*Tim Cornelissen, Jona Sassenhagen, Dejan Draschkow & Melissa Le-Hoa Vo*



## Tuesday, August 22<sup>nd</sup>, 13.30 - 15.30

### Symposium: Eye movements during the reading of narrative and poetic text

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**Room 1** (HS 14 - M.10.12)

Convenors: Arthur M. Jacobs & Jana Lüdtkke

- 13.30 Weary with toil, I haste me to my bed: Eye tracking Shakespeare sonnet  
*Shuwei Xue, Daniela Giordano, Jana Lüdtkke, Renata Gambino, Grazia Pulvirenti, Concetto Spampinato & Arthur M. Jacobs*
- 13.50 Individual differences in eye-movement patterns in response to literary language  
*Emiel van den Hoven, Franziska Hartung, Michael Burke & Roel M. Willems*
- 14.10 Exploring meaning construction in readers of English-language Haiku: An eye-tracking study  
*Franziska Günther, Hermann J. Müller, Thomas Geyer, Jim Kacian & Stella Pierides*
- 14.30 Immersion, Emotion and Eye Movements in Self-paced Reading of passages from Harry Potter  
*Lea Musiolek, Jana Lüdtkke & Arthur M. Jacobs*
- ~~14.50 Using eye movements to study comprehension monitoring in beginning readers  
*Young Suk Kim, Christian Vorstius & Ralph Radach*~~
- 15.10 General discussion

### Thematic session: Visual search

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**Room 2** (HS 32 - K.11.23)

Chair: Rebecca Foerster

- 13.30 Your Attention seeks Confirmation: Visual confirmation bias overshadows prevalence effects in visual attention  
*Stephen C. Walenchok, Stephen D. Goldinger & Michael C. Hout*
- 13.50 Humans do not make efficient eye movements during visual search  
*Anna Nowakowska, Alasdair D.F. Clarke & Amelia R. Hunt*
- 14.10 Time course of brain activity during unrestricted visual search: Co-registering EEG and Eye Movements  
*Juan E. Kamienskowski, Alexander Varatharajah, Mariano Sigman, Rodrigo Quian Quiroga & Matias J. Ison*
- 14.30 Visual working-memory biases attention: Evidence for involuntarily object-based top-down control by search-irrelevant features  
*Rebecca M. Foerster & Werner X. Schneider*
- 14.50 Eye Movements and the Label Feedback Effect: Speaking Modulates Visual Search, But Probably Not Visual Perception  
*Katherine P. Hebert, Stephen C. Walenchok & Stephen D. Goldinger*
- 15.10 Shorter fixation durations in visual search after 24 hours of total sleep deprivation  
*Christian Mühl & Daniel Aeschbach*

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**Thematic session: Interactive and group eye-tracking**


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**Room 3** (HS 28 - I.13.71)

Chair: Edwin Dalmaijer

- 13.30 Group Eye Tracking (GET) Applications in Gaming and Decision Making  
*Cengiz Acarturk, Mani Tajaddini & Ozkan Kilic*
- 13.50 Mass measurement of eye-movements under the dome - proof of concept studies  
*Maksymilian Bielecki, Katarzyna Potęga vel Żabik, Michał Gochna & Jacek Mikulski*
- 14.10 Using multiple gaze trackers and combining the results  
*Miika T. Toivanen & Markku Hannula*
- 14.30 Joint Attention on the Cartesian Plain: A Dual Eye-Tracking Study  
*Anna Shvarts & Anatoly Krichevets*
- 14.50 How Teachers See It: Using Mobile Eyetracking to Explore Professional Vision and Teacher-Student Interactions in the Classroom  
*Irene T. Skuballa & Antje von Suchodoletz*
- 15.10 Gaze-assisted remote communication between teacher and students  
*Kari-Jouko Rähkä, Oleg Spakov, Howell Istance & Diederick C. Niehorster*

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**Thematic session: Scene perception**


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**Room 4** (HS 26 - I.13.65)

Chair: Antje Nuthmann

- 13.30 The relative importance of foveal vision in visual search in 3D dynamic scenes  
*Adam C. Clayden, Robert B. Fisher*
- 13.50 The developmental trajectory of eye movements to object-scene inconsistencies and their relation to language abilities  
*Sabine Öhlschläger & Melissa Le-Hoa Vo*
- 14.10 Dynamic recipes for oculomotor selection of objects in realistic scenes  
*Sara Spotorno & Ben Tatler*
- 14.30 Individual Smooth Pursuit Strategies in Dynamic Natural Scene Perception  
*Ioannis Agtzidis, Mikhail Startsev & Michael Dorr*
- 14.50 The bimodality of saccade duration distribution  
*Hélène Devillez, Randall C. O'Reilly & Tim Curran*
- 15.10 Using sound to guide gaze in a 'split-screen' film: Mike Figgis' Timecode as a found experiment  
*Tim J. Smith, Jonathan P. Batten & Jennifer X. Haensel*

## Wednesday, August 23<sup>rd</sup>, 10.30 - 12.30

### Symposium: The role of eye movements in self-motion perception

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Room 1 (HS 14 - M.10.12)

Convenors: Paul R. MacNeilage & Jonathan S. Matthis

- 10.30 Gaze and the visual control of foot placement when walking over real-world rough terrain  
*Jonathan S. Matthis & Mary Hayhoe*
- 10.50 Eye movement cues to self-motion perception  
*Ivar Clemens, Luc Selen, Antonella Pomante, Paul MacNeilage & Pieter Medendorp*
- 11.10 Visual-vestibular conflict detection depends on fixation  
*Isabelle Garzor & Paul MacNeilage*
- 11.30 Heading representations in primates are compressed by saccades  
*Frank Bremmer, Jan Churan & Markus Lappe*
- 11.50 Dynamics of eye movements during visual path integration in primates  
*Kaushik J. Lakshminarasimhan, Xaq Pitkow & Dora Angelaki*
- 12.10 General discussion

### Thematic session: Attention and memory

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Room 2 (HS 32 - K.11.23)

Chair: Daniel Smith

- 10.30 Attentional selection in averaging saccades  
*Luca Wollenberg, Heiner Deubel & Martin Szinte*
- 10.50 Vertical gaze paralysis is associated deficits of attention and memory: Evidence from Progressive Supranuclear Palsy  
*Daniel Smith & Neil Archibald*
- 11.10 Nasal-temporal differences on cueing effect: how cue eccentricity and visual field affect the orienting of visuo-spatial attention  
*Soazig Casteau & Daniel T. Smith*
- 11.30 Presaccadic attention analyzed with a novel dynamic noise paradigm  
*Nina Maria Hanning & Heiner Deubel*
- 11.50 Detecting concealed memory via eye movements  
*Oryah Lancry, Tal Nahari, Gershon Ben-Shakhar & Yoni Pertzov*
- 12.10 Spoken words help in retrieving information from visual working memory  
*Seema Gorur Prasad, Pratik Bhandari & Ramesh Mishra*

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**Thematic session: Innovative methods and technology**


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**Room 3** (HS 28 - I.13.71)

Chair: Catrin Hasse

- 10.30 Improving computerized adaptive testing using eye tracking measures  
*Benedict C.O.F. Fehringner*
- 10.50 Eye movement indicators for successful failure detection  
*Catrin Hasse & Carmen Bruder*
- 11.10 Individual objective versus subjective fixation disparity as a function of prism load  
*Wolfgang Jaschinski*
- 11.30 3D Eye Tracking in Monocular and Binocular Conditions  
*Xi Wang, Marianne Maertens & Marc Alexa*
- 11.50 Using Priors to Compensate Geometrical Problems in Head-Mounted Eye Trackers  
*Fabricio B. Narcizo, Zaheer Ahmed & Dan W. Hansen*
- 12.10 The development and validation of a high-speed stereoscopic eye tracker  
*Annemiek D. Barsingerhorn, Nienke Boonstra & Jeroen Goossens*

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**Thematic session: Reading: Predictive and high level processing**


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**Room 4** (HS 26 - I.13.65)

Chair: Victoria McGowan

- 10.30 Beyond cloze probability: Semantic and syntactic preview effects in reading  
*Aaron Veldre & Sally Andrews*
- 10.50 Are older readers "riskier"? Examining adult age differences in reading  
*Victoria A. McGowan, Sarah J. White, Kayleigh L. Warrington & Kevin B. Paterson*
- 11.10 Benchmarking n-gram, topics and recurrent neural network models in predicting word cloze completion and eye movement variance  
*Markus J. Hofmann, Chris Biemann, Steffen Remus & Ralph Radach*
- 11.30 Predictive processing is key for reading: An evaluation of a visual information optimization model with eye movements in reading  
*Benjamin Gagl & Christian Fiebach*
- 11.50 The processing of bounded and unbounded negated representations during reading: An eye-movement investigation  
*Lewis T. Jayes, Hazel I. Blythe, Kevin B. Paterson & Simon P. Livesedge*
- 12.10 Using eye tracking to "figure out" how verb-particle constructions are understood during L1 and L2 reading  
*Mehrgol Tiv, Laura Gonnerman, Veronica Whitford, Deanna Friesen, Debra Jared & Debra Titone*

## Wednesday, August 23<sup>rd</sup>, 13.30 - 15.30

### Symposium: Microsaccades: Modeling, Analysis, and Synthesis

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**Room 1** (HS 14 - M.10.12)      Convenors: Andrew T. Duchowski, Krzysztof Krejtz & Izabela Krejtz

- 13.30      Dynamic Modeling of Fixational Eye Movements: The Role of Neural Delays  
*Ralf Engbert, Carl J. J. Hermann & Ralf Metzler*
- 13.50      Saliency and Surprise Revealed by Microsaccades  
*Yoram S. Bonneh, Uri Polat, Misha Tsodyks & Yael Adini*
- 14.10      Evaluating Microsaccades for Cognitive Load Measurement  
*Krzysztof Krejtz, Izabela Krejtz, Andrew T. Duchowski, Cezary Biele & Anna Niedzielska*
- 14.30      Microsaccades of ADHD Patients during Facial Affect Recognition  
*Nina Gehrler, Michael Schönenberg, Krzysztof Krejtz & Andrew T. Duchowski*
- 14.50      Microsaccades during Visual Search of Gaussian Terrain  
*Justyna Żurawska & Andrew T. Duchowski*
- 15.10      Perception of Synthesized Microsaccadic Jitter  
*Andrew T. Duchowski, Sophie Jörg & Krzysztof Krejtz*

### Thematic session: Saccade control and fixational activity

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**Room 2** (HS 32 - K.11.23)

Chair: Stefan van der Stigchel

- 13.30      Rapid updating of spatial working memory across saccades  
*Artem V. Belopolsky, Paul J. Boon, Silvia Zeni & Jan Theeuwes*
- 13.50      Perceptual continuity across saccades: evidence for rapid spatiotopic updating  
*Jasper Hajo Fabius, Alessio Fracasso & Stefan Van der Stigchel*
- 14.10      Spatiotemporal dynamics and topological network characteristics of the fixation-related EEG lambda activity  
*Andrey R. Nikolaev, Marcello Giannini, Hossein Seidkhani, Radha Nila Meghanathan, David Alexander & Cees van Leeuwen*
- 14.30      Microsaccade features and microsaccade-related alpha-synchronization across the life span  
*Ying Gao & Bernhard Sabel*
- 14.50      Unifying micro and macro-saccades with a space dependent, stochastic threshold  
*Geoffrey Megardon & Aline Bompas*
- 15.10      The relationship between visual sampling and hippocampal activity in younger and older adults  
*Zhong-Xu Liu, Kelly Shen, Rosanna K. Olsen & Jennifer D. Ryan*

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**Thematic session: Eye-tracking in the educational context**


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**Room 3** (HS 28 - I.13.71)

Chair: Halszka Jarodzka

- 13.30 A tool to assist teachers to determine if learners apply the divisibility rules correctly  
*Pieter Potgieter & Pieter Blignaut*
- 13.50 Using Eye-Tracking to Measure Strategies of Comparing the Numerical Values of Fraction  
*Andreas Obersteiner*
- 14.10 Adapting instruction to learners' gaze behavior: Does an adaptive multimedia system support learning?  
*Anne Schueler, Marie-Christin Krebs, Thérèse F. Eder & Katharina Scheiter*
- 14.30 The effects of conceptual and perceptual difficulty on processing and engagement in text during reading and learning  
*Alexander Strukelj, Marcus Nyström & Kenneth Holmqvist*
- 14.50 How are processing strategies reflected in the eyes? Triangulating results from self-reports and eye tracking  
*Leen Catrysse, David Gijbels & Vincent Donche*
- 15.10 Teachers' perceptions and interpretations of classrooms in the digital age  
*Halszka Jarodzka, Liesbeth Meijer & Sharisse Van Driel*

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**Thematic session: Reading: Individual differences**


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**Room 4** (HS 26 - I.13.65)

Chair: Mallorie Leinenger

- 13.30 Effects of individual language skills on phonological coding during skilled reading: Evidence from survival analyses of eye movement data  
*Mallorie Leinenger*
- 13.50 Individual differences and context properties affect word learning  
*Victor Kuperman & Bryor Sneffjella*
- 14.10 Using Latent-Growth-Curve-Models to Examine Children's Eye-movements During Reading as Individual Difference Variables in Development  
*Christopher J. Lonigan, Ralph Radach & Christian Vorstius*
- ~~14.30 Complex: An eye movement database of individual differences in the recognition of morphologically complex words  
*Daniel Schmidtke & Victor Kuperman*~~
- 14.50 An eye movement study of children's pronoun processing: Individual differences in the detection of incongruence during reading  
*Sarah Eilers, Simon P. Tiffin-Richards & Sascha Schroeder*
- 15.10 Oculomotor control in visual tasks predicts reading skill regardless of scanning direction  
*Regina Henry, Julie A. Van Dyke & Victor Kuperman*

## Wednesday, August 23<sup>rd</sup>, 17.00 - 19.00

### Symposium: Insights from Eye Movement Research with Immersive Technologies

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**Room 1** (HS 14 - M.10.12)

Convenors: Dejan Draschkow

- 17.00 ~~Using Virtual Reality to Assess Ethical Decisions in Road Traffic Scenarios: Applicability of Value of Life Based Models and Influences of Time Pressure~~  
~~Gordon Pipe~~
- 17.00 Virtual reality for the study of visually guided action  
*Gabriel Diaz*
- 17.20 A Virtual reality setup for intensive care unit patients while applying controlled visual and acoustic stimulation  
*Stephan Gerber*
- 17.40 The influence of contextual rules on object interactions and spatial representations: a virtual reality investigation  
*Dejan Draschkow & Melissa L.-H. Vo*
- 18.00 Advances in the research of anxiety and anxiety disorders using virtual reality  
*Bastian Söhnchen, Mathias Müller & Paul Pauli*
- 18.20 ~~Research on cognitive architecture of human motor performance and its application in VR environments~~  
~~Thomas Schack & Kai Essig~~
- 18.20 A fresh look at visuomotor interception of moving targets: inconsistencies, limitations, and persistent questions  
*Constantin Rothkopf & Huaiyong Zhao*
- 18.40 Using closed-loop-VR to probe human visuomotor control  
*Constantin A. Rothkopf, Huaiyong Zhao, Julia Frankenstein & David Hoppe*

### Thematic session: Pupillometry

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**Room 2** (HS 32 - K.11.23)

Chair: Sebastiaan Mathôt

- 17.00 What's good about big pupils?  
*Sebastiaan Mathôt & Yavor Ivanov*
- 17.20 Attention in visual periphery: Evidence from pupillometry  
*Andreas Brocher, Raphael Harbecke & Stefanie Hüttermann*
- 17.40 Pupil Sizes Scale with Attentional Load and Task Experience in a Multiple Object Tracking Task  
*Basil Wahn, Daniel P. Ferris, W. David Hairston & Peter König*
- 18.00 Raven revisited: Fixation-related EEG alpha frequency band power and pupil dilation unravel fluctuations in cognitive load during task performance  
*Christian Scharinger & Peter Gerjets*
- 18.20 Towards pupil-assisted target selection in natural environments  
*Christoph Strauch, Greiter Lukas & Anke Huckauf*
- 18.40 CHAP: An Open Source Software for Processing and Analyzing Pupillometry Data  
*Ronen Hershman, Noga Cohen & Avishai Henik*

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**Thematic session: Learning and cognitive information processing**


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**Room 3 (HS 28 - I.13.71)**

Chair: Aline Godfroid

- 17.00 The use of eye tracker in the discrimination of linguistic and image processing demands in a picture-identification task  
*Letícia M. Sicuro Corrêa, Elisângela N. Teixeira & Erica dos Santos Rodrigues*
- 17.20 Using eye movements to measure conscious and unconscious linguistic knowledge  
*Aline Godfroid, Jieun Ahn, Patrick Rebuschat & Zoltan Dienes*
- 17.40 Animacy and children's online processing of restrictive relative clauses  
*Ross G. Macdonald, Ludovica Serratrice, Silke Brandt, Anna Theakston & Elena Lieven*
- 18.00 Can the Eye-Mind Connection Be Broken in the Visual World Paradigm?  
*Anastasiya Lopukhina & Anna Laurinavichyute*
- 18.20 Words and Images: Information Distribution in Comic Panels  
*Clare Kirtley, Benjamin W. Tatler, Christopher Murray & Phillip B. Vaughan*
- 18.40 Eye-movements in wordless picture stories: Search for comprehension during bridging inference generation  
*John P. Hutson, Joseph P. Magliano & Lester C. Loschky*

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**Thematic session: Reading: Corpus analysis and text processing**


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**Room 4 (HS 26 - I.13.65)**

Chair: Johanna Kaakinen

- 17.00 Russian Sentence Corpus  
*Anna Laurinavichyute, Irina Sekerina, Kristine Bagdasaryan & Svetlana Alexeev*
- 17.20 PoCoCo: An eye-movement corpus of graphic novel reading  
*Jochen Laubrock, Sven Hohenstein & Eike Richter*
- 17.40 A Crosslinguistic Investigation of Eye Movements During Reading  
*Denis Drieghe, Jukka Hyönä, Xin Li, Guoli Yan, Xuejun Bai & Simon P. Livesedge*
- 18.00 Fluctuations in cognitive engagement during reading: Evidence from concurrent recordings of postural and eye movements  
*Johanna K. Kaakinen, Ugo Ballenghein, Geoffrey Tissier & Thierry Baccino*
- 18.20 Auditory distraction by meaningful background speech during reading  
*Martin R. Vasilev, Simon P. Livesedge, Daniel Rowan, Julie A. Kirkby & Bernhard Angele*
- 18.40 Eye-tracking data analysis using hidden semi-Markovian models to identify and characterize reading strategies  
*Brice Olivier, Jean-Baptiste Durand, Anne Guérin-Dugué & Marianne Clausel*



## Thursday, August 24<sup>th</sup>, 9.00 - 11.00

### Symposium: Interpreting and Using Visualizations of Eye Movements to Improve Task Performance and Learning

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**Room 1** (HS 14 - M.10.12)

Convenors: Margot van Wermeskerken et al.

- 9.00 Searching with and against each other  
*Tim Cornelissen, Diederick C. Niehorster, Ignace T.C. Hooge & Kenneth Holmqvist*
- 9.20 Eye see what you are doing: Inferring task performance from eye movement data  
*Margot van Wermeskerken, Damien Litchfield & Tamara van Gog*
- 9.40 Gaze guidance in number-line tasks  
*Damien Litchfield, Thomas Gallagher-Mitchell & Victoria Simms*
- 10.00 Look where eye looked: Eye movement modeling examples enhance learning to solve geometry problems  
*Tim van Marlen, Margot van Wermeskerken, Halszka Jarodzka & Tamara van Gog*
- 10.20 Using eye movement modeling examples as an instructional tool for learning with multimedia: The influence of model and learner characteristics  
*Marie-Christin Krebs, Anne Schüler & Katharina Scheiter*
- 10.40 If I showed you where you looked, you still wouldn't remember  
*Ellen M. Kok, Avi M. Aizenman, Melissa L.-H Vö & Jeremy M. Wolfe*

### Thematic session: Oculomotor event detection

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**Room 2** (HS 32 - K.11.23)

Chair: Ignace Hooge

- 9.00 Is human classification a gold standard in fixation detection?  
*Ignace T.C. Hooge, Diederick C. Niehorster, Marcus Nyström, Richard Andersson & Roy S. Hessels*
- 9.20 Looking sparse? Model-based saccade detection on the position profile  
*David J. Mack & Federico Wadehn*
- 9.40 Towards Low-Latency Blink Detection Using Event-Based Vision Sensors  
*Florian Hofmann, Arren Glover, Thies Pfeiffer, Chiara Bartolozzi & Elisabetta Chicca*
- 10.00 Topology for gaze analyses  
*Oliver Hein*
- 10.20 End-to-end eye-movement event detection using deep neural networks  
*Raimondas Zemblyns, Diederick C. Niehorster & Kenneth Holmqvist*
- 10.40 Comparing Data Evaluation Task Effects on Data Driven Event Detection Models  
*Michael Haass, Matzen Laura & Kristin Divis*

**Thematic session: Usability and web-based interface design**


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**Room 3** (HS 28 - I.13.71)

Chair: Gemma Fitzsimmons

- 9.00 Fake sites through the customers' eyes  
*Simone Benedetto & Christian Caldato*
- 9.20 Children's attention management on commercial websites: Effects of task type and advert prominence  
*Nils Holmberg*
- 9.40 Reading for Comprehension versus Skim Reading on the Web: The Impact of Hyperlinks and Navigation  
*Gemma Fitzsimmons, Mark J. Weal & Denis Drieghe*
- 10.00 Learning 3D layout from 2D views: insights from eye movement behaviour during multiplex screen viewing  
*Kenneth C. Scott-Brown, Matthew J. Stainer & Benjamin W. Tatler*
- 10.20 Visual attention and neural co-activation reflect conscious processing during prosthetic hand use, but only during object manipulations  
*Johnny V. V. Parr, Neil Harrison, Sam Vine, Mark Wilson & Greg Wood*

**Thematic session: Reading: Basic oculomotor control**


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**Room 4** (HS 26 - I.13.65)

Chair: Françoise Vitu

- 9.00 Oculomotor adaptations when reading mirror-reversed texts  
*André Krügel, Johan Chandra & Ralf Engbert*
- 9.20 Eye Movement Control for Horizontal and Vertical English Text  
*Sha Li, Maryam A. Aljassmi, Kayleigh L. Warrington, Sarah J. White, Jingxin Wang, Mercedes Sheen et al.*
- 9.40 How MASC, a Model of Attention in the Superior Colliculus, pretends to read despite being completely illiterate!  
*Françoise Vitu, Hossein A. Gregory & J. Zelinsky*
- 10.00 Eye-Movement Evidence for Object-Based Attention in Reading  
*Yanping Liu & Erik D. Reichle*
- 10.20 The impact of forced fixations on word recognition: Dissociation of oculomotor behavior and linguistic processing  
*E. R. Schotter, Mallorie Leininger & Titus von der Malsburg*
- 10.40 Word demarcation in reading of newly learned strings: There's something special about spaces  
*Mengsi Wang, Hazel I. Blythe & Simon P. Liversedge*

## Thursday, August 24<sup>th</sup>, 11.30 - 13.30

### Symposium: Pharmacological Influences on Voluntary Oculomotor Control

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**Room 1** (HS 14 – M.10.12)

Convenor: Jakob Heinzle & Ulrich Ettinger

- 11.30 Effects of NMDA antagonists on voluntary control of eye movements in non-human primates  
*Pierre Pouget & Marcus Missal*
- 11.50 Effects of Ketamine on Brain Function during Smooth Pursuit and Antisaccade Eye Movements in Healthy Humans  
*Maria Steffens, Anna Kasparbauer, Inga Meyhöfer, René Hurlmann & Ulrich Ettinger*
- 12.10 Neuropharmacology of cognitive control: local manipulations of the dopaminergic and cholinergic system in monkey prefrontal cortex during antisaccade performance  
*Susheel Vijayraghavan, Alex James Major & Stefan Everling*
- 12.30 Model based analysis of dopaminergic and cholinergic neuromodulation on voluntary control of eye movements in humans  
*Jakob Heinzle, Dario Schöbi, Klaas Enno Stephan & Eduardo A. Aponte*
- 12.50 Cholinergic and Dopaminergic Influences on Eye Movements in Humans  
*Ulrich Ettinger, Anna Kasparbauer, Maria Steffens, Inga Meyhöfer, Eliana Faiola & Nadine Petrovsky*
- 13.10 General discussion

### Thematic session: Saccade programming II

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**Room 2** (HS 32 - K.11.23)

Chair: Hans Trukenbrod

- 11.30 Dissociating automatic capture, to individual stimuli or the global effect location, from intentional saccade targeting  
*David Aagten-Murphy & Paul M. Bays*
- 11.50 Asymmetries of the saccadic system: A tool to quantify eye dominance strength  
*Jérôme Tagu, Karine Doré-Mazars, Christelle Lemoine-Lardennois, Judith Vergne & Dorine Vergilino-Perez*
- 12.10 Saccade countermanding reflects automatic inhibition as well as top-down cognitive control  
*Aline Bompas, Annie Campbell & Petroc Sumner*
- 12.30 Oculomotor gap effect and antisaccade performance in the common marmoset  
*Kevin Johnston & Stefan Everling*
- 12.50 Control of fixation durations in a visually guided task  
*Hans A. Trukenbrod & Jan Grenzebach*
- 13.10 Adaptation of post-saccadic drift in reflexive saccades does not transfer to voluntary saccades  
*Giulia Manca & Heiner Deubel*

**Thematic session: Applied visual cognition**


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**Room 3** (HS 28 - I.13.71)

Chair: Andrew K. Mackenzie

- 11.30 Eye movements during lifeguard visual search for a drowning swimmer  
*Victoria Laxton, David Crundall, Christina Howard & Duncan Guest*
- 11.50 Multiple Object Avoidance (MOA): A more sensitive measure of visual attention in the real world  
*Andrew K. Mackenzie, Paul R. Cox, Christina Howard, Duncan Guest & David Crundall*
- 12.10 The (Change) Blindingly Obvious: Investigating Fixation Behaviour during CCTV Observation  
*Gemma Graham, James Sauer, Jenny Smith, Lucy Akehurst & James Ost*
- 12.30 Eye movements during perspective-taking in younger and older adults  
*Victoria E. A. Brunsdon, Elisabeth E. F. Bradford & Heather Ferguson*
- 12.50 Using eye-tracking to study how belief-reasoning processes change across the lifespan  
*Elisabeth E. F. Bradford, Victoria E. A. Brunsdon, Heather Ferguson*
- 13.10 An eye-tracking investigation of mindset effects on information search in incentivized decisions under uncertainty  
*Jonas Ludwig, Alexander Jaudas & Anja Achtziger*

**Thematic session: Reading: Word level processing**


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**Room 4** (HS 26 - I.13.65)

Chair: Heather Sheridan

- 11.30 Raeding transposde etxt: Effects of letter position, word frequency and constraint  
*Christopher James Hand, Joanne Ingram & Graham Scott*
- 11.50 Morphological guidance of eye movements during reading  
*Jukka Hyönä, Seppo Vainio & Timo Heikkilä*
- 12.10 Morphological processing in sentence reading: Evidence from the fast priming paradigm  
*Betty Mousikou & Sascha Schroeder*
- 12.30 Distributional analyses of age of acquisition effects on fixation durations during reading  
*Heather Sheridan & Barbara J. Juhasz*
- 12.50 Eye movements during lexical access of a third language  
*Pâmela Freitas Pereira Toassi, Mailce B. Mota & Elisângela N. Teixeira*
- 13.10 Learning new words when reading: effects of contextual diversity and temporal spacing  
*Ascensión Pagán & Kate Nation*

## Thursday, August 24<sup>th</sup>, 14.30 - 16.30

### Symposium: Yarbus, eye movements and vision 50 years on

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Room 1 (HS 14 – M.10.12)

Convenor: Benjamin W. Tatler

- 14.30 Yarbus on stationary retinal images and moving eyes  
*Nicholas Wade*
- 14.50 The evolution of gaze analysis tools to support complex tasks  
*Jeff B. Pelz*
- ~~15.10 Computational modeling of gaze guidance during scene free viewing and daily tasks  
*Ali Borji*~~
- 15.30 Eye guidance in scenes: Object-based selection in extrafoveal vision  
*Antje Nuthmann*
- 15.50 Characterising top-down guidance of fixation in scenes and objects  
*Tom Foulsham*
- 16.10 The balance between the stimulus and the task in determining the scanpath  
*Iain Gilchrist*

### Thematic session: Clinical Research II

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Room 2 (HS 32 - K.11.23)

Chair: Valerie Benson

- 14.30 Processing of Co-Reference in Autism Spectrum Disorder  
*Philippa L. Howard, Simon P. Liversedge & Valerie Benson*
- 14.50 How does the presence or absence of a Title Modulate Processing of Ambiguous Passages in Individuals with Autism: An Eye Movement Study  
*Valerie Benson, Philippa Howard & Johanna Kaakinen*
- 15.10 Inhibitory control for emotional and neutral scenes in competition: An eye-tracking study in bipolar disorder  
*Manuel Perea, Ladislao Salmerón & Ana García-Blanco*
- 15.30 Smooth Pursuit in Adults with Developmental Dyslexia  
*Gillian O'Driscoll, Veronica Whitford, Ashley Chau-Morris & Debra Titone*
- ~~15.50 Visual field diagnostics with eye tracking: development and neuropsychological testing of a new diagnostic tool  
*Michael Christian Leitner, Constanze Haslacher, Stefan Hawelka, Lorenzo Vignali, Sarah Schuster & Florian Hutzler* → moved to Clinical Research I (Tuesday, 12.10)~~
- 15.50 Eye tracking live social interaction to capture gaze behavior of subclinical autism and social anxiety  
*Roy S. Hessels, Gijs A. Holleman, Tim H. W. Cornelissen, Ignace T. C. Hooge & Chantal Kemner*
- 16.10 Calibrating an eye tracker for blind patients implanted with the Argus II retinal prosthesis using a handheld marker  
*Avi Caspi, Jessy D. Dorn, Arup Roy, Robert J. Greenberg*

**Thematic session: Eye data analysis and evaluation**


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**Room 3** (HS 28 - I.13.71)

Chair: Laura Matzen

- 14.30 SMAC with HMM: a toolbox to model and classify scanpaths with Hidden Markov Models  
*Antoine Coutrot*
- 14.50 Gaze Self-similarity Plots as a useful tool for eye movement characteristics analysis  
*Pawel Kasprowski & Katarzyna Harezlak*
- 15.10 Towards to an automatic authentication method based on eye movement by using scanpath comparison algorithms  
*Carlos-Alberto Quintana-Nevárez & Francisco López-Orozco*
- 15.30 Magnitude and Nature of Variability in Eye-tracking Data  
*Kenneth Holmqvist, Raimondas Zemblys & Tanya Beelders*
- 15.50 Effects of Task on Eye Movements During Comprehension of Abstract Data Visualizations  
*Laura Matzen, Kristin Divis & Michael Haass*

**Thematic session: Reading: Across the lifespan**


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**Room 4** (HS 26 - I.13.65)

Chair: Kevin Paterson

- 14.30 Syllables vs. morphemes in early reading of Finnish  
*Tuomo Häikiö & Seppo Vainio*
- 14.50 Words from the wizarding world: Reading fictional words in supportive and non-supportive contexts  
*Joanne Ingram & Christopher J. Hand*
- 15.10 Re-Assessing Adult Age Differences in the Perceptual Span during Reading  
*Kevin Paterson, Kayleigh Warrington, Sarah White & Victoria McGowan*
- 15.30 Adult Age Differences in Chinese Reading: Effects of Character Complexity  
*Jingxin Wang, Lin Li, Sha Li, Yingying Zhang & Kevin Paterson*
- 15.50 Aging and the Misperception of Words during Reading  
*Kayleigh L. Warrington, Sarah J. White, Victoria A. McGowan & Kevin B. Paterson*

## Poster

### Session I -Monday, August 21<sup>st</sup>, 15.30 - 17.00

#### Attention and visual information processing

- I-1 Gaze-contingent stimulus removal leads to subsequent changes in attentional allocation  
*Karin Ludwig, Doris Schmid & Thomas Schenk*
- I-2 The relationship between subjective time perception and visual attention  
*Maria Konstantinova, Leonid Tereshchenko, Viktor Anisimov & Alexander Latanov*
- I-3 Rapid top-down and bottom-up auditory attention as reflected by (micro-)saccadic inhibition  
*Andreas Widmann, Alexandra Bendixen, Susann Duwe, Ralf Engbert, Erich Schröger & Nicole Wetze*
- I-4 Pre-saccadic remapping of foveal attention  
*Meng Fei Ngan, Luca Wollenberg, Heiner Deubel & Martin Szinte*
- I-5 Saccade deviation and saccadic reaction time: What is the relationship?  
*Luke Tudge & Torsten Schubert*
- I-6 Can you squint on command? No reliable voluntary control and awareness of eye vergence in the absence of an actual target  
*Sonja Walcher, Christof Körner & Mathias Benedek*
- I-7 Maintaining stability in a fixation task: Are stimuli at all eccentricities equally effective?  
*Anna-Katharina Hauperich & Hannah E. Smithson*
- I-8 Extrafoveal perception of geometric shapes in adults and children  
*Anatoly N. Krichevets, Dmitry V. Chumachenko, Anna A. Dreneva & Anna Yu. Shvarts*
- I-9 What can and what cannot be perceived extrafoveally  
*Anna A. Dreneva, Anna Yu Shvarts, Dmitry V. Chumachenko & Anatoly N. Krichevets*
- I-10 Attention and response speed in pupil old/new effects  
*Tim Graf & Andreas Brocher*
- I-11 Effect of aging on ocular fixation and microsaccades during optic flow  
*Marcia Bécu, Guillaume Tatur, Alix de Dieuleveult, Changmin Wu, Silvia Marchesotti, Denis Sheynikhovich & Angelo Arleo*

- I-12 Saccadic adaptation increases brain excitability: a MEG study  
*Judith Nicolas, Aline Bompas, Romain Bouet, Olivier Sillan, Eric Koun, Christian Urquizar, Alessandro Farnè, Aurélie Bidet-Caulet & Denis Pélisson*
- I-13 Localization of briefly flashed targets across sequential eye-movements  
*Janne van Aswegen, Stefan Dowiasch & Frank Bremmer*
- ~~I-14 The influence of threat-associated distractors on express saccades  
*Jessica Heeman, Stefan Van der Stigchel & Jan Theeuwes*~~
- I-15 Stereoacuity in the temporal proximity of vergence movements  
*Thomas Eggert*
- I-16 A Tool-based Process for Generating Attention Distribution Predictions  
*Sebastian Feuerstack & Bertram Weutelen*

### Reading: Visual and orthographic processing

- I-17 Statistical Estimation of Oculomotor Processes During Reading  
*Johan Chandra, André Krügel & Ralf Engbert*
- I-18 Contrast change effects reveal time course of parafoveal processing in eye movements during reading  
*Tina Andrea Schlachter & Sarah Risse*
- I-19 Gaze-contingent unmasking of filtered text regions during reading of graphic literature  
*Sven Hohenstein, Jochen Laubrock & Eike M. Richter*
- I-20 The effect of misspellings on reading of correctly spelled words, across paradigms and languages  
*Victor Kuperman & Sadaf Rahmanian*
- I-21 Reading at the speed of speech: Convergence between visual and auditory language perception at 4-5 Hz?  
*Benjamin Gagl, Julius Golch, Stefan Hawelka, Jona Sassenhagen, David Poeppel & Christian J. Fiebach*
- I-22 Effective visual field of horizontal and vertical reading in Japanese  
*Nobuyuki Jincho*
- I-23 The perceptual span of young and older Chinese readers  
*Victoria A. McGowan, Kayleigh L. Warrington, Lin Li, Sha Li, Yingying Zhang, Yuxiang Yao, Jingxin Wang, Sarah J. White & Kevin B. Paterson*
- I-24 Effects of Aging and Pattern Complexity on the Visual Span of Chinese Readers  
*Kayleigh L. Warrington, Lin Li, Fang Xie, Sha Li, Jingxin Wang, Victoria A. McGowan, Sarah J. White & Kevin B. Paterson*



- I-25 Adult Age Differences in Eye-Guidance during Chinese Reading  
*Lin Li, Sha Li, Jingxin Wang, Yuxiang Yao & Kevin B. Paterson*
- I-26 Eye Movement Control and Word Identification During Vertical and Horizontal Reading: Evidence from Mongolian  
*Kevin Paterson, Juan Su, Guoen Yin, Xuejun Bai, Guoli Yan & Simon P. Liversedge*
- I-27 The Perceptual Span during Vertical and Horizontal Reading: Evidence from Mongolian  
*Kevin Paterson, Juan Su, Guoen Yin, Stoyan Kurtev, Simon P. Liversedge, Bai Xuejun & Guoli Yan*
- I-28 Investigating word length in Chinese reading: Evidence from eye movements  
*Chuanli Zang, Ying Fu & Simon P. Liversedge*
- I-29 The last, but not the initial character's positional frequency affects Chinese compound word processing in reading  
*Feifei Liang, Qi Gao, Jie Ma, Hao Wu & Xuejun Bai*
- I-30 The role of spaces in segmenting Finnish and Chinese text  
*Raymond Bertram, Liyuan He & Simon P. Liversedge*
- I-31 Vertical movement within fixations in the reading of Chinese and English  
*Yi-ting Hsiao, Richard Shillcock, Mateo Obregón, Hamutal Kreiner, Matthew A.J. Roberts & Scott McDonald*
- I-32 When readers pay attention to the left: A concurrent eyetracking-fMRI investigation on the neuronal correlates of regressive eye movements during reading  
*Anna F. Weiß, Franziska Kretzschmar, Arne Nagels, Matthias Schlesewsky, Ina Bornkessel-Schlesewsky & Sarah Tune*

## Developmental Eye Movement Research

- I-33 Fetal eye movements in response to a visual stimulus  
*Tim Donovan, Kirsty Dunn, Sophie Clarke, Anna Gillies, Olivia Mercer & Vincent Reid*
- I-34 Early regulatory problems associated with the affect-biased attention at 8 month of age  
*Eeva Eskola, Riikka Korja, Eeva-Leena Kataja, Linnea Karlsson, Tuomo Häikiö, Henri Pesonen, Jukka Hyönä & Hasse Karlsson*
- I-35 MATERNAL PRENATAL STRESS AND INFANT ATTENTION TO EMOTIONAL FACES AT THE AGE OF EIGHT MONTHS IN FINNBRAIN BIRTH COHORT  
*Eeva-Leena Kataja, Linnea Karlsson, Henri Pesonen, Jukka Leppänen, Tuomo Häikiö, Jukka Hyönä, Christine Parsons & Hasse Karlsson*
- I-36 Infant free-viewing: the role of object knowledge  
*Daan van Renswoude, Maartje Raijmakers, Roos Voorvaart & Ingmar Visser*

- I-37 Development of oculomotor control from infants to toddlers: temporal and spatial parameters of voluntary saccades  
*Christelle Lemoine-Lardennois, Nadia Alahyane, Mallaury Hamon, Clara Ferrari & Karine Doré-Mazars*
- I-38 Individual differences in children's learning through eye-tracking experiment  
*Dmitry Chumachenko, Anna Shvarts & Anna Dreneva*
- I-39 Exploring the development of oculomotor attentional control in emotional and non-emotional contexts  
*Athina Manoli, Simon P. Liversedge, Edmund Sonuga-Barke & Julie A. Hadwin*
- I-40 ~~Development of eye movements related to executive functions in elementary school students~~  
~~*Suxia Wang, Ralph Radach, Christian Vorstius, Yan Sun & Lizhu Yang*~~
- I-40 Reading and searching in Chinese: The role of lexical processing  
*Sarah J. White, Xiaotong Wang, Li Hua Zhang & Xue Sui*

### **Developmental research on eye movements in reading**

- I-41 Patterns of 5-6 year old children reading picture book: Evidence from eye movements  
*Yuanyuan Sun, Peng Wan & Guiqin Ren*
- I-42 The perceptual span of second graders in Chinese primary school  
*Guoli Yan, Sainan Li, Min Liu & Yali Wang*
- I-43 Reading Instructions Influence Cognitive Processes of Illustrated Text Reading for Young Readers: An Eye-Tracking Study  
*Yu-Cin Jian*
- I-44 The eye-tracking study of reading in Russian primary schoolchildren  
*Aleksei Korneev, Ekaterina Matveeva, Tatyana Akhutina*
- I-45 EYE-TRACKING STUDY OF READING THE TEXTS OF DIFFERENT TYPES: EVIDENCE FROM RUSSIAN  
*Tatiana Petrova*
- I-46 The Correlation between Eye Movement Data and Three Commonly Used Academic Reading Assessments  
*Alexandra Spichtig, Kristin Gehsmann, Jeffrey Pascoe & John Ferrara*
- I-47 Effects of Scaffolded Silent Reading Practice on the Reading Related Eye Movements of US Students in Grades 4 and 5  
*Kristin Gehsmann, Alexandra Spichtig, Jeffrey Pascoe & John Ferrara*
- I-48 Relationship Between Students' Stages of Orthographic Knowledge and Reading

## Efficiency

*Kristin Gehsmann, Elias Tousley, Alexandra Spichtig, Jeffrey Pascoe & John Ferrara*

- I-49 The Reliability of Reading Efficiency Measures Obtained by Classroom Educators Using a Low-Cost Eye Movement Recording System  
*Alexandra Spichtig, Jeffrey Pascoe & John Ferrara*
- I-50 What can we reveal from saccade events of eye movements when EFL high school students read narrative with illustration?  
*Grace Ming-Yi Hsieh & Sunny San-Ju Lin*

## Usability, New Media and Visual Communication

- I-51 Situational Modulation of Multimedia Processing Strategies  
*Fang Zhao, Wolfgang Schnotz, Inga Wagner & Robert Gaschler*
- I-52 Extraction of Semantic Saliency on Memory and Remembering during reading/searching information in the context of Web interaction  
*Véronique Drai-Zerbib & Thierry Baccino*
- I-53 Typography and individual experience in digital reading: Do readers' eye movements adapt to poor justification?  
*Julian Jarosch, Matthias Schlesewsky, Stephan Füssel & Franziska Kretzschmar*
- I-54 A contrastive perception study of popular-scientific texts written by journalists vs. researchers  
*Silvia Hansen-Schirra, Jean Nitzke, Anke Tardel, Christoph Böhmert & Philipp Niemannl*
- I-55 Eye Response to Blockiness Artifacts in Video  
*Deepti Pappusett & Hari Kalva*
- ~~I-56 Personalization in online advertising: Effects of demographic targeting on visual attention  
*Kai Kaspar, Sarah Lucia Weber & Anne Kathrin Wilbers*~~
- I-57 Attention to brand logos during the first exposure to advertisements affects the neural correlates of recognition memory: An eye movement – ERP study  
*Jaana Simola*
- I-58 Eye Movement Markers in Perceiving of Logos  
*Adel Adiatullin, Marina Koroleva, Victor Anisimov, Alexander Latanov & Natliya Galkina*
- I-59 Understanding use of labelling information when preparing infant formula: an eye-tracking study  
*Lenka Malek, Hazel Fowler & Gillian Duffy*

- I-60 Visual intake of price information of organic food – a shopping task with Eye-Tracking Glasses  
*Manika Rödiger & Ulrich Hamm*
- I-61 The ‘objectifying gaze’ - how it is affected by information on distribution of sexting images  
*Frederike Wenzlaff, Briken Peer & Dekker Arne*
- I-62 Speed transformation function as a mean of improvement of gaze-based HCI  
*Dominik Chrzqstowski-Wachtel, Cezary Biele, Marek Młodożeniec, Anna Niedzielska, Jarosław Kowalski, Paweł Kobylński, Krzysztof Krejtz & Andrew T. Duchowski*
- I-63 Investigating gaze-controlled input in a cognitive selection test  
*Katja Gayraud, Catrin Hasse, Hinnerk Eißfeldt & Sebastian Pannasch*
- I-64 The effect of visual signaling when reading to do  
*Michael Meng*
- I-65 Eye-Tracking-Based Attention Guidance in Mobile Augmented Reality Assistance Systems  
*Patrick Renner & Thies Pfeiffer*
- I-66 Usability Heuristics for Eye-Controlled User Interfaces  
*Korok Sengupta, Chandan Kumar & Steffen Staab*
- I-67 CrowdPupil: A crowdsourced, pupil-center annotated image dataset  
*David Gil de Gómez Pérez & Roman Bednarik*
- I-68 Robust, real-time eye movement classification for gaze interaction using finite state machines  
*Antonio Diaz-Tula & Carlos H. Morimoto*
- I-69 Supervised Gaze Bias Correction for Gaze Coding in Interactions  
*Rémy Siegfried & Jean-Marc Odobez*
- I-70 Schau genau! A Gaze-Controlled 3D Game for Entertainment and Education  
*Raphael Menges, Chandan Kumar, Ulrich Wechselberger, Christoph Schaefer, Tina Walber & Steffen Staab*

### **Social Cognition, emotion and cultural factors**

- I-71 A Framework for Exploring the Social Gaze Space  
*Arne Hartz, Mathis Jording, BjörnGuth, Kai Vogeley & Martin Schulte-Rüther*
- I-72 Visual Exploration of Social Stimuli – Comparisons of Patients with ADHD or Autism and Healthy Controls  
*Chara Ioannou, Divya Seernani, Holger Hill, Giuseppe Boccignone, Tom Foulsham, Monica Biscaldi-Schäfer, Christopher Saville, Ulrich Ebner-Priemer, Christian Fleischhaker & Christoph Klein*

- I-73 Eye movement patterns in response to social and non-social cues  
*Claudia Bonmassar, Francesco Pavani & Wieske van Zoest*
- I-74 Oculomotor action control in social and non-social information processing contexts  
*Eva Katharina Riechelmann, Anne Böckler, Tim Raettig & Lynn Huestegge*
- I-75 Understanding social interaction and social presence of others using simultaneous eye tracking of two people: Behavioral Data  
*Haruka Nakamura, Seiya Kamiya & Takako Yoshida*
- I-76 Gender differences in natural viewing behavior?  
*Marco Rüth, Anne-Kathrin Wilbers, Daniel Zimmermann & Kai Kaspar*
- I-77 Does our native language determine what we pay attention to? A cross-linguistic study of gaze behaviour between Korean and German speakers  
*Florian Goller, Ulrich Ansorge & Soonja Choi*
- I-78 Social influence on face perception in different ethnicities – An eye tracking study in a free viewing scenario  
*Jonas D. Großekathöfer & Matthias Gamer*
- I-79 Psychopaths show a reduced tendency to look at the eyes while categorizing emotional faces  
*Nina A. Gehrer, Jonathan Scheeff, Aiste Jusyte & Michael Schönenberg*
- I-80 Perceiver's sensitivity and lateralization bias in the detection of posed and genuine facial emotions in movie clips: eye tracking study  
*Katerina Lukasova, Yuri Busin, Manish K. Asthana & Elizeu C. Macedo*
- I-81 Implicit Negative Affect Predicts Attention for Sad Faces beyond Self-Reported Depression – An Eye Tracking Study  
*Charlott M. Bodenschatz, Marija Skopinceva, Anette Kersting & Thomas Suslow*
- I-82 Gender differences in eye movement patterns during facial expression recognition  
*Elizaveta Luniakova, Natalia Malysheva & Jahan Ganizada*
- I-83 Analyzing Emotional Facial Expressions' Neural Correlates Using Event-Related Potentials and Eye Fixation-Related Potentials  
*Emmanuelle Kristensen, Raphaëlle N. Roy, Bertrand Rivet, Anna Tcherkassof & Anne Guérin-Dugué*
- I-84 Affective and Cognitive Influences of Aesthetic Appeal of Texts on Oculomotor Parameters  
*Hideyuki Hoshi*
- I-85 The eye movement examination on achievement emotion images  
*Chia Yueh Chang & Sunny SJ. Lin*

- I-86 Space scanning patterns in impulsive and reflective subjects  
*Anna Izmalkova & Irina Blinnikova*
- I-87 Correlations between eye movements and personality traits  
*Anne-Kathrin Wilbers & Kai Kaspar*

## Session II - Tuesday, August 22<sup>nd</sup>, 15.30 - 17.00

### Smooth pursuit eye movements

- II-1 Saliency coding in superior colliculus during smooth pursuit eye movements  
*Brian White, Jing Chen, Karl Gegenfurtner & Douglas Munoz*
- II-2 Analysis of superior colliculus receptive fields during smooth pursuit eye movements  
*Jing Chen, Brian White, Karl Gegenfurtner, & Doug Munoz*
- II-3 Doing Smooth Pursuit paradigms in Windows 7  
*Inge L. Wilms*
- II-4 Predictable motion on a Necker cube leads to micro-pursuit-like eye movements and affects the dynamics of bistability.  
*Kevin M. Ashwin Parisot, Alan Chauvin, Anne Gu erin, Ronald Phlypo & Steeve Zozor*
- II-5 Manual & Automatic Detection of Smooth Pursuit in Dynamic Natural Scenes  
*Mikhail Startsev, Ioannis Agtzidis & Michael Dorr*
- II-6 Spatiotemporal EEG Source Localization during Smooth Pursuit Eye Movement by Use of Equivalent Dipole Source Localization Method  
*Takahiro Yamano, Tomoko Yonemura & Hisashi Toyoshima*
- II-7 Visual transient onsets decrease initial smooth pursuit velocity and inhibit the triggering of catch-up saccades  
*Antimo Buonocore & Ziad M. Hafed*

### Visual Search, Scanpaths and Scene Perception

- II-8 Searching for real objects in a natural environment: The role of contextual semantic cues and incidental encoding in older and young viewers  
*Hanane Ramzaoui, Sylvane Faure & Sara Spotorn*
- II-9 Dwelling, Rescanning, and Skipping of Distractors Explain Search Efficiency in Difficult Search: Evidence from Large Set Sizes and Unstructured Displays  
*Gernot Horstmann, Stefanie Becker & Daniel Ernst*
- II-10 The effect of changing the item relevance in repeated search  
*Sebastian A. Bauch, Christof K rner, Iain D. Gilchrist & Margit H fler*

- II-11 Target and distractor guidance in repeated visual search: When using memory does not improve search  
*Margit Höfler, Iain D. Gilchrist, Anja Ischebeck & Christof Körner*
- II-12 Process Analysis of Visual Search in ADHD, Autism and Healthy Controls – Evidence from Intra- Subject Variability in Gaze Control.  
*Divya P. Seernani, Holger Hill, Giuseppe Boccignone, Tom Foulsham, Christian Fleischhaker, Monica Biscaldi, Ulrich Ebner-Priemer & Christoph Klein*
- II-13 When one target predicts the other: Target guidance in visual search  
*Christof Körner, Jonas Potthoff, Ulrich Ebner-Priemer & Christoph Klein*
- II-14 Does context influence the low prevalence effect in visual search?  
*Titus N. Ebersbach, Walter R. Boot & Ralph Radach*
- II-15 Simulation of visual hemi-neglect by spatio-topic and retino-topic manipulation of visual search displays  
*Jennifer Winter, Björn Machner, Inga Könemund, Janina von der Gablentz, Christoph Helmchen & Andreas Sprenger*
- II-16 Where can I find the Honey, Honey? Using color cues to overwrite syntactic rules in a scene-search paradigm  
*Marian D. Laukamp, Lisa Völker, Sabine Öhlschläger & Melissa Le-Hoa Vo*
- II-17 Time course of central and peripheral processing during scene viewing  
*Anke Cajar, Ralf Engbert & Jochen Laubrock*
- II-18 Central fixation bias: The role of sudden image onset and early gist extraction  
*Lisa F. Schwetlick, Lars O. M. Rothkegel, Hans A. Trukenbrod & Ralf Engbert*
- II-19 Eye movements in scene perception during quiet standing  
*Daniel Backhaus, Hans A. Trukenbrod, Lars O. M. Rothkegel, Ralf Engbert*
- II-20 Gaze Paths on a Stochastic Image  
*Miriam Mirolla & Emiliano Melchiorre*
- II-21 Eye movements and saliency for the Hollywood2 action recognition benchmark  
*Michael Dorr & Eleonora Vig*
- II-22 Cultural variation in eye movements during scene perception: replication with a Russian sample  
*Anton Gasimov & Artem Kovalev*
- II-23 The influence of verbalization on eye movement parameters during complex scene repeated viewing  
*Veronika Prokopenya & Ekaterina Torubarova*

## Clinical Research

- II-24 EyeGrip as a tool for assessing dementia  
*Diako Mardanbegi, Shahram Jalaliniya, Hans Gellersen, Trevor J. Crawford & Peter Sawyer*
- II-25 Executive function processes in dementia: Impairments in anti-saccadic eye movements are indicative for first disease stages  
*Lucas Paletta, Martin Pszeida & Mariella Panagl*
- II-26 EYE MOVEMENT BEHAVIOR IN MCI AND AD: USING AUTOMATIC CLASSIFICATION ALGORITHMS TO IDENTIFY COGNITIVE DECLINE  
*Marta L. G. Pereira, Marina von Zuben de Arruda Camargo, Ariella F. Belan, Bernardo dos Santos & Orestes V. Forlenza*
- II-27 Eye Movement Parameters while Executing Oculomotor Tasks in Patients with Cerebellum Tumor  
*Marina Shurupova, Viktor Anisimov, Alexander Latanov & Vladimir Kasatkin*
- II-28 GENERAIN – a transgenerational eye-tracking study on attention biases in children at risk for depression  
*Anca Sfärlea, Elske Salemink, Gerd Schulte-Körne & Belinda Platt*
- II-29 Saccadic inhibition and its interaction with implicit processing of emotion in Bipolar Disorder patients  
*Nathalie Guyader, Alan Chauvin, Lysianne Beynel, Sylvain Harquel, Cécilia Neige & Mircea Polosan*
- II-30 Utilizing Eye-Movement Patterns for Improving ADHD Diagnosis and Malingering Detection  
*Michael Wagner, Corinne Berger, Yoram Braw, Tomer Elbaum & Tzur Chohen*
- II-31 Parafoveal processing Efficiency in Chinese developmental dyslexia: Evidence from RAN tasks  
*Wen Wang, Ke Tan, Mingzhe Zhang & Xuejun Bai*
- II-32 Investigating the effects of orthographic visual complexity on fixations in typical and dyslexic reading of English  
*Rea Marmarinou, Jun Bao, Richard Shillcock, Mateo Obregón, Hamutal Kreiner, Matthew A.J. Roberts & Scott McDonald*
- II-33 The benefit of eye tracking in the assessment and therapy of acquired dyslexia  
*Irene Ablinger & Ralph Radach*
- II-34 A visuomotor analysis of multilevel therapy in pure alexia  
*Anne Friede, Irene Ablinger & Ralph Radach*
- II-35 Eye movements in text reading in a patient with incomplete Bálint's syndrome  
*Katja Halm, Ralph Radach & Irene Ablinger*



- II-36 Localizing hemianopic visual field defects based on natural viewing behavior while watching movie clips  
*Birte Gestefeld, Alessandro Grillini, Jan-Bernard C. Marsman & Frans W. Cornelissen*
- II-37 Visual search behaviours in dementia-related visual impairment in controlled real-world settings  
*Ayako Suzuki, Keir Yong, Ian McCarthy, Tatsuto Suzuki, Dilek Ocal, Nikolaos Papadosifos, Derrick Boampong, Nick Tyler & Sebastian Crutch*
- II-38 Playing games with your eyes: using gaze for intervention and outcome assessment in ASD  
*Leanne Chukoskie & Jeanne Townsend*
- II-39 Novel steps for online eye-gaze contingent attention training: A mouse-based moving window approach  
*Alvaro Sanchez, Jill Van Put & Ernst Koster*

### Reading: high-level processing

- II-40 Sentence to image priming of gender information. Can eyetracking data shed more light on priming effects?  
*Anton Öttl, Ute Gabriel, Dawn Marie Behne, Pascal Gygax & Jukka Hyönä*
- II-41 How L2 instruction influences eye-movements during reading: a within-participant study of English learners  
*Daniel Schmidtke, Amy-Beth Warriner, Victor Kuperman & Anna Moro*
- II-42 Metaphor comprehension in English as an additional language learner (EALL): evidence from eye movements  
*Annina Kristina Hessel, Victoria Murphy & Kate Nation*
- II-43 Using Eye Movements to Investigate Cross-Language Syntactic Activation During Natural Reading  
*Naomi Vingron, Jason Gullifer, Veronica Whitford, Deanna Friesen, Debra Jared & Debra Titone*
- II-44 Reading first and second language comprehension texts in Sepedi and English among senior phase learners  
*Pheladi F. Fakude*
- II-45 Selective Attention of Second Language Readers  
*Caleb Prichard & Andrew Atkins*
- II-46 Task effects reveal cognitive flexibility responding to readers' level and word frequency: Evidence from eye movements for Chinese-English bilinguals during English reading  
*Xin Li, Haichao Li, Yongsheng Wang, Xuejun Bai & Guoli Yan*

- II-47 How EFL beginners and intermediate level students read story structures along with illustrations via eye-tracking techniques  
*Grace Ming-Yi Hsieh & Sunny San-Ju Lin*
- II-48 The influence of location information and word frequency on Chinese poly morphemic word recognition  
*Erjia Xu & Xue Sui*
- II-49 Literal and Figurative Language Processing: Evidence from Bilingual Sentence Reading  
*Danielle dos Santos Wisintainer & Mailce B. Mota*
- II-50 Reading and topic scanning in English and Chinese: Effects of word frequency and spacing  
*Sarah J. White, Yaqi Wang & Xue Sui*
- II-51 Eye movements in reading global and local syntactic ambiguity in Russian  
*Victor Anisimov, Olga Fedorova, Leonid Tereschenko & Alexander Latanov*
- II-52 Effects of counterargument construction instruction and viewpoint presentation order on reducing myside bias in reading texts regarding controversial issues  
*Miao-Hsuan Yen & Ying-Tien Wu*
- II-53 The Effects of Tasks and Signals on Text Processing for Readers with Different Strategies  
*Shouxin Li, Dexiang Zhang, Zhaoxia Zhu & Yuwei Zheng*
- II-54 Eye movement correlates of absorbed literary reading  
*Moniek Kuijpers & Sebastian Wallot*
- II-55 The role of defaultness and personality factors in sarcasm interpretation: Evidence from eye-tracking during reading  
*Ruth Filik, Hannah Howman, Christina Ralph-Nearman & Rachel Giora*

## Cognition and Learning

- II-56 ~~Lab – Field Comparisons on Intra-Subject Variability of Eye Movements~~  
~~*Divya P. Seernani, Holger Hill, Chara Ioannou, Nadine Penkalla, Giuseppe Boccignone, Tom Foulsham, Christian Fleischhaker, Monica Biscaldi, Ulrich Ebner Priemer & Christoph Klein*~~  
**moved to III-46**
- II-56 Eye movements are linked to sexual preference in a real world preferential looking paradigm  
*Frouke Hermens & Oliver Baldry*
- II-57 Smart Detection of Driver Distraction Events  
*William David Clifford, Catherine Deegan & Charles Markham*

- II-58 The Influence of Light-Induced Dynamics on Attention, Perception, and Driving Behavior: A Real-World Driving Study  
*Markus Grüner, Peter Hartmann, Ulrich Ansorge & Christian Büsel*
- II-59 Investigating Feedback Processing with Eye Tracking  
*Kim Dirks, Jarodzka Halszka & Desiree Joosten-ten Brinke*
- II-60 Sleep deprivation systematically changes eye movement characteristics  
*Justine Winkler, Ricardo Ramos Gameiro, Peter König, Daniel Aeschbach & Christian Mühl*
- II-61 Applying head-mounted eye-tracking to investigate cultural differences in real-world face scanning  
*Jennifer X. Haensel, Tim J. Smith & Atsushi Senju*
- II-62 Presentation Parameters Affecting Effects in the Visual World Paradigm  
*Marie-Anne Morand & Constanze Vorweg*
- II-63 Predicting Information Context Processing from Eye movements  
*Saurin S. Parikh, Hari Kalva*
- II-64 Confidence in perceptual judgments preceding eye movements  
*Monique Michl & Wolfgang Einhäuser*
- II-65 The relationship between performance in the anti-saccade task and memory for paintings  
*Tobiasz Trawinski, Natalie Mestry, Simon P. Liversedge & Nick Donnelly*
- II-66 A closer look at numbers in simultaneous interpreting: An eye-tracking study  
*Pawel Korpala & Katarzyna Stachowiak*
- II-67 Is parallel language activation modulated by simultaneous interpreting expertise?  
*Laura Keller*
- II-68 Can you see what I'm saying? Eye movements and bilingual spoken language processing in conference interpreting  
*Katarzyna Stachowiak*
- II-69 Evidencing the emergence of sensorimotor structures underlying proportional reasoning  
*Shakila Shayan, Loes Boven, Arthur Bakker, Marieke van der Schaaf & Dor Abrahamson*
- II-70 From lenses movement to cognitive processes: What new insight may eye tracking provide  
*Gustavo Gasaneo, Maria L. Freije, Juan I. Specht, Adrian A. Jimenez Gandica, Claudio A. Delrioux, Borko Stosic & Tatijana Stosic*

## Methods, Software and innovative Technology

- II-71 Statistical analysis of eye movement sequences using spatial point processes  
*Anna-Kaisa Ylitalo*
- II-72 Study of fixations and saccades when viewing holograms, stereo images, and 2D images  
*Taina M. Lehtimäki, Mikko Niemelä, Risto Näsänen, Ronan G. Reilly & Thomas J. Naughton*
- II-73 Using gaze data to evaluate text readability: a multi task learning approach  
*Ana V. Gonzalez-Garduño*
- II-74 Parsing Pupil and Eyeball Movement in Camera-based Eye-tracker Output  
*Jun Bao & Richard Shillcock*
- II-75 Extracting Saccade-to-fixation Trajectory From Eye Movement Data in Reading  
*Jun Bao & Richard Shillcock*
- II-76 Data-driven Gaze Event Classification for the Analysis of Eye and Head Coordination By Natural Task.  
*Gabriel J. Diaz, Reynold Bailey, Chris Kanan, Mychal Lipson, Jeff Pelz & Rakshit Kothari*
- II-77 Assessment of Two Low Cost Eye Trackers  
*Shanmugaraj Madasamy*
- II-78 Mobile eye tracking: Reliability in assessing saccadic eye movements in reading  
*Alexander Leube, Katharina Rifai & Siegfried Wahl*
- II-79 Is There a “Paperback” Option in the Domain of Eye Trackers? A New Approach for Comparing Devices  
*Agnes Scholz, Johannes Titz & Peter Sedlmeier*
- II-80 What to expect from your remote eye-tracker when participants are unrestrained  
*Diederick C. Niehorster, Tim H. W. Cornelissen, Kenneth Holmqvist, Ignace T.C. Hooge & Roy S. Hessels*
- II-81 Gaussian Mixture Models for Information Integration: Toward Gaze-Informed Information Foraging Models for Imagery Analysis  
*Maximillian Chen, Kristin Divis, Laura McNamara, J. Daniel Morrow & David Perkins*
- II-82 Moving from low level eye movement data to meaningful content in dynamic environments  
*Kristin M. Divis, Maximillian Chen, Laura McNamara, J. Dan Morrow & David Perkins*
- II-83 Measuring dynamic and static vergence using an autostereoscopic display  
*Wolfgang Jaschinski*

- II-84 Objective measurement of variability of fixation disparity – is it possible?  
*Dawid Dominiak, Alicja Brenk-Krakowska & Wolfgang Jaschinski*
- II-85 Sturmian-Wavelets as a tool to analyze eye tracking data  
*Jessica A. Del Punta, Gustavo Gasaneo, María L. Freije, Marcos Meo & Lorenzo U. Ancarani*
- II-86 Study on eye movement dynamics during the ‘jumping point’ experiment  
*Katarzyna Harezlak & Pawel Kasprowski*
- II-87 An Update to the EYE-EEG Toolbox for Combined Eye-Tracking and EEG  
*Olaf Dimigen*
- II-88 Accuracy and precision test for a remote visible spectrum eye tracker  
*Chia-Ning Liao, Ming-Da Wu, Yen-Hua Chang, Wen-Chung Kao, Yi-Chin Chiu & Yao-Ting Sung*
- II-89 Study on Directional Eye Movements in Non-frontal Face Images for Eye-controlled Interaction  
*Min Lin*
- II-90 Eye-movement in the dark for the exploration of virtual scenes encoded by sounds  
*Sylvain Huet, Julien Doré, Zélie Buquet, Denis Pellerin & Christian Graff*
- II-91 OT Eye: A tool to guide intervention and monitor progress during occupational therapy  
*Pieter Blignaut, Elize Janse van Rensburg & Marsha Oberholzer*
- II-92 GazeCode: an open-source toolbox for mobile eye-tracking data analysis  
*Jeroen S. Benjamins, Roy S. Hessels & Ignace T.C. Hooge*
- II-93 Gaze Contingent Control of Vergence, Yaw and Pitch of Robotic Eyes for Immersive Telepresence  
*Remi Cambuzat, Frédéric Elisei & Gérard Bailly*

## Session III - Wednesday, August 23<sup>rd</sup>, 15.30 - 17.00

### Visual perception and ocolomotor control

- III-1 Exploring the temporal dynamics of trans-saccadic perceptual re-calibration  
*Matteo Valsecchi, Carlos R. Cassanello, Arvid Herwig, Martin Rolfs & Karl R. Gegenfurtner*
- III-2 Selective facilitation of the luminance visual pathway by postsaccadic target blanking  
*Kazumichi Matsumiya, Masayuki Sato & Satoshi Shioiri*
- III-3 Transsaccadic prediction of real-world objects  
*Arvid Herwig*

- III-4 Visual perception of intrasaccadic information: A response priming experiment  
*Charlotte Schwedes, Elodie Banse, Lorena Hell & Dirk Wentura*
- III-5 Visual working memory aids trans-saccadic integration  
*Emma E. Marshall Stewart & Alexander C Schütz*
- III-6 ERP potentials at the stage of saccadic preparation  
*Victoria Moiseeva, Maria Slavutskaya, Natalia Fonsova & Valery Shulgovskiy*
- III-7 The effect of distractor processing on the target-related P300: Evidence from fixation-related potentials  
*Hannah Hiebel, Joe Miller, Clemens Brunner, Andrey R. Nikolaev, Margit Höfler, Anja Ischebeck & Christof Körner*
- III-8 Asymmetrical effects of saccade training on express saccade proportion in the nasal and temporal hemifields  
*Arni Kristjánsson, Jay Edelman, Bjarki D. Sigurbórsson & Ómar I. Johannesson*
- III-9 Saccade training increases peak velocities and express saccade proportion for both trained and untrained eyes  
*Ómar I. Johannesson, Jay A. Edelman, Bjarki D. Sigurbórsson & Árni Krisjánsson*
- III-10 Age-related changes in modulation of saccadic control by salience and value  
*Jing Huang, Karl R. Gegenfurtner, Alexander C. Schütz & Jutta Billino*
- III-11 An age-dependent saccadic saliency model  
*Antoine Coutrot & Olivier Le Meur*
- III-12 Can the cortical magnification factor account for the latency increase in the remote distractor effect when the distractor is less eccentric than the target?  
*Soazig Casteau, Françoise Vitu & Robin Walker*
- III-13 The optokinetic nystagmus dynamic reflects the vection illusion perception  
*Artem Kovalev*
- III-14 The use of eye tracking in fMRI study: differences in adults and children predictive saccades  
*Katerina Lukasova & Edson Amaro*
- III-15 Microsaccade and blink rates index subjective states during audiobook listening  
*Elke B. Lange & Moniek Kuijpers*
- III-16 Fixation duration in EOG studies with eyes closed  
*Tanina Rolf & Niels Galley*
- III-17 Separate resource pools for effector systems? Evidence from manual-oculomotor dual tasks  
*Aleks Pieczykolan & Lynn Huestegge*

- III-18 Influence of background illumination on horizontal and vertical objective fixation disparity  
*Remo Poffa, Joëlle Joss & Roland Joos*

### **Interactive and group eye tracking**

- III-19 Explore the effectiveness of online dynamic video-text vs. static image-text multimedia learning on students' science performance: An Eye movement study  
*Ya-Chi Lin & Hsiao-Ching She*
- III-20 Using eye-tracking to provide dynamic assistance on the reading skills of beginner readers on desktop or mobile devices  
*Rykie Van der Westhuizen & Pieter Blignaut*
- III-21 Using Eye Tracking Data to Assist Identifying Wayfinding Strategies in the Virtual Maze  
*Tsuei-Ju Hsieh & Jun-Kai Niu*
- III-22 Real-time visualisation of student attention in a computer laboratory  
*Pieter Blignaut*
- III-23 Detecting collaboration in a real classroom mathematics problem solving session from visual scan-paths  
*Enrique G. Moreno-Esteva, Jessica Salminen-Saari, Miika Toivanen & Markku S. Hannula*
- III-24 Preservice teachers' professional vision of own classroom management: combining mobile eye tracking in the classroom with retrospective reporting  
*Sharisse van Driel, Halskza Jarodzka, Frank Crasborn & Saskia Brand-Gruwel*
- III-25 "Look who's reading now!" - Evaluating the benefit of interactive eye tracking in chat  
*Christian Schlösser, Carsten Friedrich, Linda Cedli & Andrea Kienle*
- III-26 Using eye-tracking techniques to explore students' reading behaviors when using e-books with different role-playing mechanisms  
*Gloria Yi-Ming Kao, Xin-Zhi Chiang & Tom Foulsham*
- III-27 What does simultaneous eye tracking of two people tell us about the social interaction and social presence of others? – A recurrence analysis  
*Seiya Kamiya, Haruka Nakamura & Takako Yoshida*
- III-28 Teacher monitoring pair and group work in English as a foreign language lessons: insights from an eye-tracking study  
*Eva Minarikova, Zuzana Smidekova & Miroslav Janik*

- III-29 Detecting collaboration in a real classroom mathematics problem solving session from visual scan-paths  
*Enrique G. Moreno-Esteva, Jessica Salminen-Saari, Miika Toivanen & Markku S. Hannula*
- III-30 Facing challenges in groups – An exploratory eye tracking and EDA study  
*Michelle L. Nugteren, Eetu Haataja, Halszka Jarodzka, Jonna Malmberg & Sanna Järvelä*
- III-31 Infrastructure and Methodology for Group Studies in Multiple Eye Trackers Laboratory  
*Martin Konopka, Robert Moro, Peter Demcak, Patrik Hlavac, Jozef Tvarozek, Jakub Simko, Eduard Kuric, Pavol Navrat & Maria Bielikova*
- III-32 Robust Recording of Program Comprehension Studies with Eye Tracking for Repeatable Analysis and Replay  
*Jozef Tvarozek, Martin Konopka, Jakub Hucko, Pavol Navrat & Maria Bielikova*

### Visual processing in the real world

- III-33 Analyze the gaze behavior of drivers of semi-autonomous vehicles  
*Holger Schmidt & Rahel Milla*
- III-34 Adding mirror information to the traditional Hazard perception test discriminates between novice and experienced drivers  
*Petya Ventsislavova & David Crundal*
- III-35 Age-related changes in gaze dynamics during real-world navigation  
*Marcia Bécu, Guillaume Tatur, Annis-Rayan Bourefis, Luca L. Bologna, Denis Sheynikhovich & Angelo Arleo*
- ~~III-36 Potentials of eye tracker use for wind turbine maintenance workers  
*Berna Ulutas & Stefan Bracke*~~
- III-37 How individual differences in visual learning process are reflected by eye movements  
*Aleksandra Kroll & Monika Mak*
- III-38 The challenge of learning histology: a longitudinal observational study with medical freshman students  
*Alan Brecht, Gertrud Klauer & Frank Nürnberger*
- III-39 The decision making on radiologists: A joint effect of experience and authority  
*Xuejun Bai & Meixiang Chen*
- ~~III-40 An Eye Gaze Based Approach for Labeling Regions in Fundus Retinal Images  
*Nilima Kulkarni & Joseph Amudha*~~



- III-41 No link between eye movements and reported eating behaviour in a non-clinical population  
*Frouke Hermens & Leanne Caie*
- III-42 Using Eye Tracking to Evaluate Survey Questions  
*Cornelia E. Neuert*
- III-43 Identifying problems in translation from scratch and post-editing with keylogging and eyetracking data  
*Jean Nitzke*
- III-44 Evaluating the Comprehensibility of Graphical Business Process Models – An Eye Tracking Study  
*Michael Zimoch, Rüdiger Pryss, Thomas Probst, Winfried Schlee, Georg Layher, Heiko Neumann & Manfred Reichert*
- III-45 Eye movements while perceiving images of natural and built environments  
*Jan Petružálek, Denis Šefara, Marek Franěk & Jiří Cabal*
- ~~III-46 Eye movements are linked to sexual preference in a real-world preferential looking paradigm  
*Frouke Hermens & Oliver Baldry*  
moved to II-56~~
- III-46 Lab - Field Comparisons on Intra-Subject Variability of Eye Movements  
*Divya P. Seernani, Holger Hill, Chara Ioannou, Nadine Penkalla, Giuseppe Boccignone, Tom Foulsham, Christian Fleischhaker, Monica Biscaldi, Ulrich Ebner-Priemer & Christoph Klein*

## Language and Cognition

- III-47 Gaze-speech coordination when listening to L1 and L2 speech  
*Agnieszka Konopka, Emily Lawrence & Sara Spotorno*
- III-48 When tones constrain segmental activation-competition in Chinese spoken word recognition: evidence from eye movements  
*Chung-I Erica Su, Guan-Huei Li & Jie-Li Tsai*
- III-49 Reading Music. How Tonality and Notation Influence Music Reading Experts' Eye Movements and Information Processing.  
*Lucas Lörch, Benedict Fehringner & Stefan Münzer*
- III-50 Characteristics of sight-reading performance of pianists depending on texture of musical pieces  
*Leonid V. Tereshchenko, Lyubov' A. Boyko, Dar'ya K. Ivanchenko, Galina V. Zadneprovskaya & Alexander V. Latanov*

- III-51 Eye-movements during the encoding of object locations provide new insights into the processing and integration of spatial information  
*Anne-Kathrin Bestgen, Dennis Edler, Frank Dickmann & Lars Kuchinke*
- III-52 Automatic identification of cognitive processes in the context of spatial thinking  
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