

European Retina Meeting 2023

University of Tübingen, Germany

Organized by Philipp Berens (U Tübingen), Thomas Euler (U Tübingen),
Tom Baden (U Sussex, UK), Béla Völgyi (U Pécs, Hungary)

Schedule


Sunday, September 17, 2023

	Brauwerk Freistil Tübingen Wöhrdstraße 25, 72072 Tübingen
17:00 – 20:00	Registration open
17:00 – 21:00	Reception w/ beverages and finger food
19:00 – 20:00	Keynote lecture Jason Kerr MPI-NB Bonn, Germany <i>Tracking the visual and retinal scene in mice, rats, ferrets, and tree shrews chasing prey.</i>


Monday, September 18, 2023

	Neue Aula – Audimax Geschwister-Scholl-Platz, 72074 Tübingen
8:00 – 16:45	Registration / Information desk open
9:00 – 10:25	Session 1.1 Retinal Circuit Function (1) Chair: Antonio Hinojosa <i>Supported by the DFG Heisenberg program</i>
9:00 – 9:10	Welcome & Announcements
9:10 – 9:40	Teresa Puthussery UC Berkeley, USA <i>Identification of ON-type direction selective ganglion cells in primate retina.</i>

9:40 – 9:55	Wei Wei U Chicago, USA <i>Voltage-gated mechanisms compartmentalize starburst amacrine cell dendrites for motion detection.</i>
9:55 – 10:25	Jonathan Oesterle U Tübingen, Germany <i>Regional difference in dendritic signal processing in mouse sON alpha retinal ganglion cells.</i>
10:25 – 10:45	Coffee break w/ beverages & snacks
10:45 – 12:00	Session 1.2 Retinal Circuit Function (2) Chair: Anna Vlasits <i>Supported by the Bernstein Award 2015</i>
10:45 – 11:15	Stephanie Palmer U Chicago, USA <i>Sparse, common correlation structure in retinal populations across natural scenes.</i>
11:15 – 11:30	Saad Idrees York U, Toronto, Canada <i>Photoreceptor biophysics enables deep learning models to capture dynamic retinal computation.</i>
11:30 – 11:45	Christian Puller MPI-NB Bonn, Germany <i>The divergence of S-cone pathways in the inner primate retina.</i>
11:45 – 12:00	Gergely Szarka U Pécs, Hungary <i>Transient OFF alpha cell gap junctions subserve the detection of approach motion.</i>
12:00 – 13:30	Lunch break
13:30 – 14:45	Session 2.1 From the Retina to the Brain (1) Chair: Florencia Gonzalez Fleitas <i>Supported by the CRC 1233 "Robust vision"</i>
13:30 – 14:00	Katja Reinhard SISSA, Italy <i>Neural basis of flexibility in visually-guided defensive behaviors.</i>
14:00 – 14:15	Alina Heukamp Weizmann Institute of Science, Rehovot, Israel <i>Direction and axis selective responses in LGN neurons suggest multiple modes of retinal convergence.</i>
14:15 – 14:45	Laura Busse LMU, Germany <i>Neuronal circuit dynamics in the visual thalamus.</i>


14:45 – 15:00	Coffee break w/ beverages & snacks
15:00 – 16:00	Session 2.2 From the Retina to the Brain (2) Chair: Lea Ankri
15:00 – 15:30	Max Jösch ISTA, Austria <i>A corollary discharge hub for visuomotor transformation.</i>
15:30 – 16:00	Sylvia Schröder U Sussex, UK <i>The impact of locomotion, arousal, and reward on early visual processing in the mouse.</i>
16:00 – 16:30	Quick-fire presentations from Poster Session 1
	 Museum – Silchersaal / Uhlandsaal Wilhelmstraße 3, 72074 Tübingen
16:45 – 19:00	Poster Session 1 w/ open bar and finger food
19:15 – 20:45	City tour (to be booked w/ registration)

Tuesday, September 19, 2023


	 Neue Aula – Audimax Geschwister-Scholl-Platz, 72074 Tübingen
8:00 – 17:00	Registration / Information desk open
9:00 – 10:30	Session 3.1 Primate Retina Chair: Paul Martin Supported by the Werner Reichardt Centre for Integrative Neuroscience (CIN)
9:00 – 9:30	Alexandra Kling Stanford, USA <i>Functional Diversity of Novel Amacrine and Ganglion Cell Types in the Primate Retina.</i>
9:30 – 10:00	Irene Aji MPI-NB Bonn, Germany <i>Correlated electrophysiological and connectomic analysis of neural circuitry in the primate retina.</i>
10:00 – 10:30	Petri Ala-Laurila U Helsinki, Finland <i>Linking human perception to retinal function at the sensitivity limit of vision.</i>

10:30 – 10:50	Coffee break w/ beverages & snacks
10:50 – 12:20	Session 3.2 New Perspectives Chair: Dominic Gonschorek
10:50 – 11:20	Karthik Shekhar UC Berkeley, USA <i>Evolutionary conservation of retinal cell types: a single-cell transcriptomic perspective.</i>
11:20 – 12:20 (10+2 min)	Sacha Sokoloski U Tübingen, Germany <i>Modelling ecological constraints on visual processing with deep reinforcement learning.</i>
	Thomas Buffet Paris Vision Institute, France <i>Estimating the surround of ganglion cells in large-scale recordings.</i>
	Tim C Hladnik U Tübingen, Germany <i>A spherical visual stimulation arena for chromatic stimulation and RF mapping during behavioral and 2-photon calcium imaging.</i>
	Samuel A Budoff U Colorado, Denver, USA <i>Spatial Assessment of Murine RGC Subclasses.</i>
	Tessa Herzog U Sussex, Brighton, UK <i>Information encoding at the first synapse in vision.</i>
12:20 – 13:45	Lunch break
13:45 – 15:00	Session 4.1 Disease & Restoration (1) Chair: Marius Ueffing
13:45 – 14:15	Marius Ader CRTD / TU Dresden, Germany <i>Transplantation of human photoreceptors into mouse models of retinal degeneration.</i>
14:15 – 14:30	Annalisa Bucci IOB, Basel, Switzerland <i>Propagation speeds of action potentials in the human retina compensate for traveling distances.</i>
14:30 – 15:00	Deniz Dalkara Paris Vision Institute, France <i>Innovative therapies for retinal dystrophies and their tailored delivery mechanisms.</i>
15:00 – 15:15	Coffee break w/ beverages & snacks

15:15 – 16:15	Session 4.2 Disease & Restoration (2) Chair: Noora Nevala
15:15 – 15:45	Sonja Kleinlogel U Bern / Hoffmann-La Roche, Switzerland Designer optogenetic gene therapies targeted at the ON-bipolar cells to restore fundamental features of vision.
15:45 – 16:00	Varsha Ramakrishna U Göttingen, Germany Visual encoding by retinal ganglion cells in optogenetic models for vision restoration.
16:00 – 16:15	Maya Carleton UCSD, La Jolla, USA Inhibition selectively gates Off-cell response in the degenerated retina.
16:15 – 16:45	Quick-fire presentations from Poster Session 2


 Museum – Silchersaal / Uhlandsaal
| Wilhelmstraße 3, 72074

17:00 – 19:15	Poster Session 2 w/ open bar and fingerfood
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 Liquid Kelter
| Schmiedtorstrasse 17, 72070 Tübingen

20:15 – 22:30	Conference Dinner (to be booked w/ registration)
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Wednesday, September 20, 2023

 Neue Aula – Audimax
| Geschwister-Scholl-Platz, 72074 Tübingen

8:00 – 15:00	Information desk open
9:00 – 10:30	Session 5.1 Vision across Species (1) Chair: Inbal Shaine Supported by EMBO
9:00 – 9:30	Aristides Arrenberg U Tübingen, Germany Motion processing in zebrafish: receptive field code and spatial anisotropies supporting optomotor behavior.

9:30 – 9:45	Michael Forsthofer LMU, Munich, Germany Tuning of visual behaviors during metamorphosis of frogs.
9:45 – 10:00	Einat Hauzman Natural History Museum, London, UK Probing the inner retina of snakes: a first glance into the photoreceptor-bipolar cell synapses.
10:00 – 10:30	Ines Ribeiro LMU Munich, Germany Friend or foe: processing visual cues in insect social behavior
10:30 – 10:50	Coffee break w/ beverages & snacks
10:50 – 12:20	Session 5.2 Vision across Species (2) Chair: Carola Yovanovich
10:50 – 11:20	Tiffany Schmidt Northwestern University, USA Visual circuits underlying threat anticipation.
11:20 – 11:35	Anja Günther MPI-NB, Bonn, Germany Species-specific wiring in bipolar cell types in two avian retinas.
11:35 – 11:50	Marvin Seifert U Sussex, UK "On-Off" switching across seven input channels: A multiplexed approach to visual processing in the bird retina.
11:50 – 12:05	Max Manackin U Oldenburg, Germany Direction selective ganglion cells in quail retina.
12:05 – 12:35	Henrik Mouritsen U Oldenburg, Germany Light-dependent, quantum-based, magnetoreception in the bird retina.
12:35 – 13:15	Lunch break w/ catered light lunch
13:15 – 14:00	Kerstan ERM Poster Awards ceremony Business Meeting, Goodbye
14:00	End of Meeting

Sponsors & Support

We are grateful to the following sponsors and funding sources for their support of the meeting.

