



Program

Friday, January 31

12:30: Registration, snack, loading/testing of Power Point presentations, hanging posters, entrance to Nord 2.

USZ Nord 1, Room C301

13:55 Welcome

14:00 **Bernhard Hess, Zürich:** *On the interaction of VOR and smooth pursuit eye movements*

14:20 **Jean Laurens, Lausanne:** *Complex spikes in the vestibulo-cerebellum*

14:40 **Bigna Lenggenhager, Zürich:** *Vestibular implications in bodily self-awareness*

15:00 **Coffee break**

15:30 **Dominik Obrist, Bern:** *BPPV fatigue: a model for explaining the reduced response to repeated maneuvers in BPPV patients*

15:50 **Rolf Adelsberger, Zürich:** *Mobile Gait Assessment: a Study on the Effects of BPPV Treatments on Patients and Healthy Subjects with a Novel Sensor System*

16:10 **Poster Blitz 1**

1. **Paul MacNeilage:** *Variability of head motion relative to the stride-cycle attractor as a predictor of vestibular suppression during human locomotion*
2. **Konrad P. Weber:** *Oculomotor palsy with cyclic spasms*
3. **Maria Heuberger:** *Anticompensatory quick eye movements during head impulses*
4. **Stefan Glasauer:** *Perceptual short-term learning of stimulus statistics requires behavioral relevance*
5. **Christopher Bockisch:** *Asymmetries in near and far space: commonalities and differences between manual and ocular bisection*

6. **Luigi Cuturi:** *Optic flow induces vestibular self-motion aftereffect*
7. **Alexander Knorr:** *Miniature oscillations in the optokinetic reflex of larval *Xenopus**
8. **Karin Eibenberger:** *Measuring Eye Movements for Vestibular and Oculomotor Research: Development of a Novel and Inexpensive System for Eye Movement Recordings Using Magnetic Scleral Search Coils*
9. **Nadine Hummel:** *The Impact of Body Orientation and Plane of Movement on Human Heading Perception*

16:30 **Coffee break**

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- 17:00 **Alexander Tarnutzer, Zürich:** *Bisecting lines - influence of direction of gravity*
- 17:20 **Lorenz Assländer, Freiburg:** *Visual improvement of human tilt responses relates to lower position and velocity thresholds in multisensory integration*
- 17:40 **Yulia Valko, Zürich:** *Polysomnography reveals nystagmus from benign paroxysmal positional vertigo*

18:00 **Poster Blitz 2**

10. **Andreas Sprenger:** *Predictive mechanisms improve the vestibulo-ocular reflex in patients with bilateral vestibular failure*
11. **Reinhart Jürgens:** *Is susceptibility to circularvection (CV) related to the weighting of optokinetic cues for passive self-turning perception?*
12. **Nisha Dalal:** *Investigating hippocampal activation elicited by watching indistinct motion stimuli*
13. **Vittorio Lippi:** *A Bio-inspired Modular System for Humanoid Posture Control*
14. **Eduardo Aponte:** *Bayesian Modeling of Saccadic Adaptation*
15. **Murat Saglam:** *Vestibular and Cerebellar Contributions to Gaze Optimality*
16. **Paul Maier:** *The effects of age on visually guided virtual path integration: data and preliminary results*
17. **Cecilia Ramaioli:** *The effect of gain pathology and covert saccades on dynamic visual stability in an opioid model of bilateral vestibular dysfunction*

18:20 Coffee, Posters (Nord 2 A floor entrance), laboratory visits

19:30 **Dinner, Restaurant Al Forno.**

15. Vestibular and Cerebellar Contributions to Gaze Optimality

Murat Saglam, German Centre for Vertigo and Balance Disorders, Munich University Hospital
Stefan Glasauer, German Centre for Vertigo and Balance Disorders, Munich University Hospital
Nadine Lehnen, German Centre for Vertigo and Balance Disorders, Munich University Hospital

16. The effects of age on visually guided virtual path integration: data and preliminary results

Paul Maier, Center for Sensorimotor Research, LMU
Frederike H. Petzschner, Translational Neuromodeling Unit (TNU), Biomedical Engineering, Uni Zurich & ETH
Maria F. Gutiérrez Herrera, Spatial Cognition Group, Clinical Neuropsychology Research, City Hospital Munich
Stefan Glasauer, Center for Sensorimotor Research, LMU

17. The effect of gain pathology and covert saccades on dynamic visual stability in an opioid model of bilateral vestibular dysfunction

Cecilia Ramaioli, German Center for Vertigo and Balance Disorders, Munich University Hospital
Paolo Colagiorgio, Department of Computer and Systems Science, University of Pavia, Pavia, Italy
Murat Saglam, German Center for Vertigo and Balance Disorders, Munich University Hospital
Fabian Heuser, Department of Anesthesiology, Klinikum rechts der Isar, TU Munich, Germany
Stefano Ramat, Department of Computer and Systems Science, University of Pavia, Pavia, Italy
Erich Schneider, Nadine Lehnen, German Center for Vertigo and Balance Disorders, Munich University Hospital

9. The Impact of Body Orientation and Plane of Movement on Human Heading Perception

Nadine Hummel, German Center for Vertigo and Balance Disorders, Munich, Germany

Luigi F. Cuturi, German Center for Vertigo and Balance Disorders, Munich, Germany

Paul R. MacNeilage, German Center for Vertigo and Balance Disorders, Munich, Germany

Virginia L. Flanagan, German Center for Vertigo and Balance Disorders, Munich, Germany

10. Predictive mechanisms improve the vestibulo-ocular reflex in patients with bilateral vestibular failure

Andreas Sprenger, Dept. of Neurology, University Luebeck

Jann Frederick Wojak, Dept. of Neurology, University Luebeck

Nico Maximilian Jandl, Dept. of Neurology, University Luebeck

Susanne Hertel, Dept. of Neurology, University Luebeck

Christoph Helmchen, Dept. of Neurology, University Luebeck

11. Is susceptibility to circularvection (CV) related to the weighting of optokinetic cues for passive self-turning perception?

Reinhart Jurgens, Universität Ulm, Sektion Neurophysiologie

Katrin Kliegl, Universität Ulm, Abteilung für Allgemeine Psychologie

Wolfgang Becker, Universität Ulm, Sektion Neurophysiologie

12. Investigating hippocampal activation elicited by watching indistinct motion stimuli

N Dalal, Graduate School of Systemic Neurosciences, Institute of Clinical Neuroscience

E Fraedrich, Graduate School of Systemic Neurosciences

V L Flanagan, German Center for Vertigo and Balance Disorders

S Glasauer, Institute of Clinical Neuroscience

13. A Bio-inspired Modular System for Humanoid Posture Control

Vittorio Lippi, Neurology Freiburg

Georg Hettich, Neurology Freiburg

Thomas Mergner, Neurology Freiburg

14. Bayesian Modeling of Saccadic Adaptation

Eduardo Aponte, Translational Neuromodeling Unit, UZ, ETHZ

Frederike Petzschnner, Translational Neuromodeling Unit, UZ, ETHZ

Klaas E. Stephan, Translational Neuromodeling Unit, UZ, ETHZ, University College London

Jakob Heinzle, Translational Neuromodeling Unit, UZ, ETHZ

Saturday February 1

8:30: Coffee (Nord 2 A floor), loading/testing of Power Point presentations

USZ Nord 1, Room C301

9:00 **Giovanni Bertolini, Zürich:** *Gaze holding in patients with cerebellar disease*

9:20 **Maresa Afthinos, Zürich:** *Modelling Infantile Nystagmus Syndrome in Zebrafish*

9:40 **Nadine Lehnen, Munich:** *Opioid-induced nausea is vestibular-induced motion sickness*

10:00 **Anja Horn, Munich:** *The myotendinous junction of extraocular muscles: An update of the anatomy and histochemistry of palisade endings*

10:20 **Coffee break**

10:40 **Martin Gorges, Ulm:** *Correlates of Altered Oculomotor Performance and Cerebral Functional Connectivity in Parkinson's Disease*

11:00 **Holger Rambold, Regensburg:** *Value of the head-impulse-test vs. caloric irrigation in routine vertigo/dizziness management*

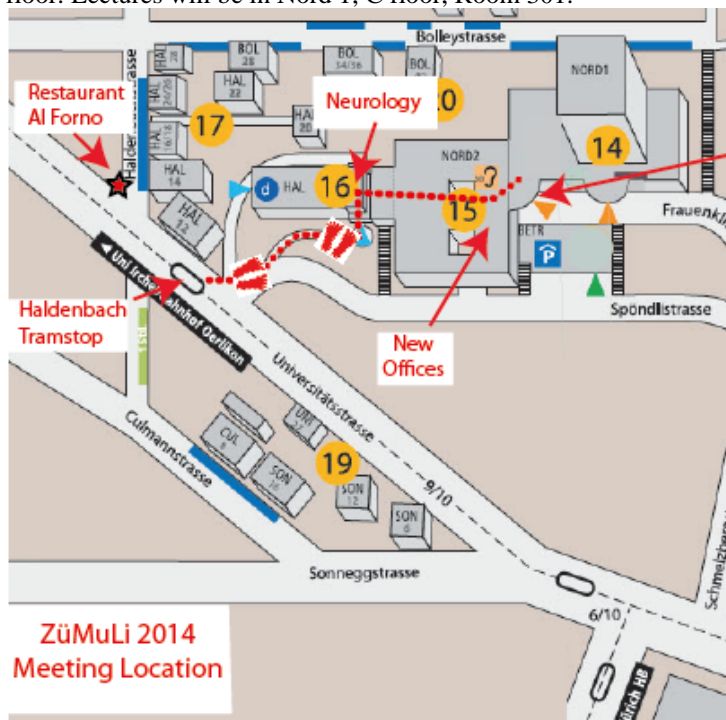
11:20 **Chien-Cheng Chen, Zürich:** *Disconjugacy of eye movements in zebrafish larvae*

11:40 **Stefano Ramat, Pavia:** *Multiple timescales and sensory prediction in the adaptation of the angular VOR*

Meeting location

Due to reconstruction of the Neurology building, the meeting will take place a short walk away. We will have signs posted showing the way from the Neurology building.

Registration, coffee, and poster sessions will be held at the entrance to Nord2, A floor. Lectures will be in Nord 1, C floor, Room 301.



Registraton
& Posters at
entrance to
Nord 2 .

Lectures on
C floor,
Room 301

5. Asymmetries in near and far space: commonalities and differences between manual and ocular bisection

Christopher J Bockisch, Department of Neurology, University Hospital Zurich
Luca Rinaldi , Department of Psychology, University of Milano-Bicocca, Milano, Italy

Giovanni Bertolini , Department of Neurology, University Hospital Zurich
Angelo Maravita , Department of Psychology, University of Milano-Bicocca, Milano, Italy

Luisa Girelli, Department of Psychology, University of Milano-Bicocca
Peter Brugger , Department of Neurology, University Hospital Zurich

6. Optic flow induces vestibular self-motion aftereffect

Luigi Cuturi, German Center for Vertigo and Balance Disorders (IFB)
Paul MacNeilage, German Center for Vertigo and Balance Disorders (IFB)

7. Miniature oscillations in the optokinetic reflex of larval *Xenopus*

Alexander Knorr, Center for Sensorimotor Research, Clinical Neuroscience, LMU Munich, Germany
Johanna Schuller, Department II, Faculty of Biology, LMU Munich, Germany
Hans Straka, Department II, Faculty of Biology, LMU Munich, Germany
Stefan Glasauer, Center for Sensorimotor Research, Clinical Neuroscience, LMU Munich, Germany

8. Measuring Eye Movements for Vestibular and Oculomotor Research: Development of a Novel and Inexpensive System for Eye Movement Recordings Using Magnetic Scleral Search Coils

Karin Eibenberger, Technical University of Vienna, Dep. of Mechanical Engineering, Vienna, Austria
Bernhard Eibenberger, Wittur GmbH, Scheibbs, Austria
Dale C. Roberts, Johns Hopkins University School of Medicine, Dep. of Neurology, Baltimore, USA
John P. Carey, Johns Hopkins University School of Medicine, Dep. of Otolaryngology, Baltimore
Thomas P. Haslwanter, University of Applied Sciences Upper Austria, Dep. of Biomed. Engin., Linz

Posters

1. Variability of head motion relative to the stride-cycle attractor as a predictor of vestibular suppression during human locomotion

Paul MacNeilage, German Center for Vertigo and Balance Disorders, University Hospital of Munich

Julia Rackerseder, Bioinformatics, TUM/LMU

Stefan Glasauer, Center for Sensorimotor Research, University Hospital of Munich

2. Oculomotor palsy with cyclic spasms

Konrad P. Weber, Departments of Neurology and Ophthalmology

Corinne Weber-Bächtold, Department of Ophthalmology

Rike Michels, Department of Ophthalmology

Christopher J. Bockisch, Departments of Ophthalmology, Neurology and Otorhinolaryngology

Klara Landau, Department of Ophthalmology

3. Anticompensatory quick eye movements during head impulses

Maria Heuberger, German Center for Vertigo and Balance Disorders; Munich University Hospital

Murat Saglam, German Center for Vertigo and Balance Disorders; Munich University Hospital

Erich Schneider, German Center for Vertigo and Balance Disorders; Munich University Hospital

Klaus Jahn, German Center for Vertigo and Balance Disorders; Munich University Hospital

Nadine Lehnen, German Center for Vertigo and Balance Disorders; Munich University Hospital

4. Perceptual short-term learning of stimulus statistics requires behavioral relevance

Stefan Glasauer, Center for Sensorimotor Research, LMU Munich

Frederike H. Petzschner, German Center for Vertigo and Balance Disorders, LMU Munich

Paul Maier, Bernstein Center for Computational Neuroscience, LMU Munich

Talks

On the interaction of VOR and smooth pursuit eye movements

Bernhard Hess, Neurology, USZ

Complex spikes in the vestibulo-cerebellum

Jean Laurens, Ecole Polytechnique Fédérale de Lausanne

Dora Angelaki, Baylor College of Medicine

Vestibular implications in bodily self-awareness

Bigna Lenggenhager, Neuropsychology, University Hospital Zurich

BPPV fatigue: a model for explaining the reduced response to repeated maneuvers in BPPV patients

Dominik Obrist, ARTORG Center, University of Bern

Mobile Gait Assessment: a Study on the Effects of BPPV Treatments on Patients and Healthy Subjects with a Novel Sensor System

Rolf Adelsberger, ETH Zürich

Prof. Dr. Dominik Straumann, UZH

Dr. Yulia Valko, UZH

Bisecting lines - influence of direction of gravity.

Alexander Tamutzer, Neurology, USZ

Christopher J Bockisch, Neurology, USZ

Dominik Straumann, Neurology, USZ

Visual improvement of human tilt responses relates to lower position and velocity thresholds in multi sensory integration

Lorenz Assländer, Neurology Freiburg

Georg Hettich, Neurology Freiburg

Albert Gollhofer, Institute for Sport and Sport Science Freiburg

Thomas Mergner, Neurology Freiburg

Polysomnography reveals nystagmus from benign paroxysmal positional vertigo

Yulia Valko, University Hospital Zurich

Esther Werth; University Hospital Zurich

Christopher J Bockisch;, University Hospital Zurich

Philipp O Valko; , University Hospital Zurich

Konrad P Weber, University Hospital Zurich

Gaze evoked and rebound nystagmus

Giovanni Bertolini, Vestibulo-oculomotor laboratory - University of Zurich
Alex Tarnutzer, Vestibulo-oculomotor laboratory - University of Zurich Konrad
P Weber, Vestibulo-oculomotor laboratory - University of Zurich
Sarah Marti, Vestibulo-oculomotor laboratory - University of Zurich
Dominik Straumann, Vestibulo-oculomotor laboratory - University of Zurich

Modelling Infantile Nystagmus Syndrome in Zebrafish

Maresa Afthinos, Universitätsspital Zürich
Giovanni Bertolini, Universitätsspital Zürich
Dominik Straumann, Universitätsspital Zürich
Melody Huang, Universitätsspital Zürich

Opioid-induced nausea is vestibular-induced motion sickness

Nadine Lehnen, Deutsches Schwindel- und Gleichgewichtszentrum und NRO, Klinikum der Uni München
F. Heuser, Anästhesie, Klinikum rechts der Isar, TU München
M. Saglam, Deutsches Schwindel- und Gleichgewichtszentrum, Klinikum der Uni München
C. Schulz, K. Wagner, E.F. Kochs, Anästhesie, Klinikum rechts der Isar, TU München
M. Taki, Otolaryngology-HNS, Kyoto Prefectural University, Japan
K. Jahn, T. Brandt, S. Glasauer, E. Schneider, Deutsches Schwindel- und Gleichgewichtszentrum, Klinikum der Uni München
Affiliations: K. Jahn: Deutsches Schwindel- und Gleichgewichtszentrum und NRO, Klinikum der Uni München; T Brandt, S. Glasauer: Deutsches Schwindel- und Gleichgewichtszentrum und Institut für Klinische Neurowissenschaften, Klinikum der Uni München; E. Schneider: Deutsches Schwindel- und Gleichgewichtszentrum, Klinikum der Uni München und Brandenburgische Technische Universität

The myotendinous junction of extraocular muscles: An update of the anatomy and histochemistry of palisade endings

Anja Horn, Institute of Anatomy, Dept. I, LMU Munich
Karoline Lienbacher, Institute of Anatomy, Dept. I, LMU Munich
Kathrin Sängler, Institute of Anatomy, Dept. I, LMU Munich
Mike Mustari, Washington National Primate Research Center, University of Washington, Seattle,
Jean Büttner-Ennever, Institute of Anatomy, Dept. I, LMU Munich

Correlates of Altered Oculomotor Performance and Cerebral Functional Connectivity in Parkinson's Disease

Martin Gorges, University of Ulm, Department of Neurology
Hans-Peter Müller, University of Ulm, Department of Neurology
Reinhart Jürgens, University of Ulm, Department of Neurology
Wolfgang Becker, University of Ulm, Department of Neurology
Elmar Pinkhardt, University of Ulm, Department of Neurology
Jan Kassubek, University of Ulm, Department of Neurology

Value of the head-impulse-test vs. caloric irrigation in routine vertigo/dizziness management

H. Rambold, County hospitals Altötting-Burghausen, University of Regensburg
A. Mahringer, County hospitals Altötting-Burghausen
S. Zellhuber, County hospitals Altötting-Burghausen

Disconjugacy of eye movements in zebrafish larvae

C.-C. Chen, Dept. of Neurology, Unispital Zurich
C. J. Bockisch, Dept. of Neurology, Ophthalmology & ENT, Unispital Zurich
Melody Huang, Dept. of Neurology, Unispital Zurich
D. Straumann, Dept. of Neurology, Unispital Zurich

Multiple timescales and sensory prediction in the adaptation of the angular VOR

Stefano Ramat, University of Pavia
Paolo Colagiorgio, University of Pavia
Giovanni Bertolini, Unispital Zurich
Chris Bockisch, Unispital Zurich
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