



Conference on Music & Eye-Tracking

Max Planck Institute
for Empirical Aesthetics
17th/18th August
2017



Max Planck Institute
for Empirical Aesthetics



Thursday/
17th August
2017

Session 1: Pupillometry & Attention

Session Chair: Bruno Laeng,
University of Oslo, Norway

12:30 Registration desk open

14:00 Welcome & Opening Key note

Welcome: Lauren Fink & Elke Lange

The eye pupil as a mirror to music's soul

Bruno Laeng

15:00 Pupil dilation indexes the metrical hierarchy of unattended rhythmic violations

Atser Damsma & Hedderik van Rijn

15:30 Predicting attention to auditory rhythms using a linear oscillator model and pupillometry

Lauren Fink, Brian Hurley, Joy Geng,
Petr Janata

16:00 What does pupil tell about musical processing?

Hsin-I Liao, Makoto Yoneya, Makio Kashino,
Shigeto Furukawa

16:30 BREAK

Coffee and cookies are provided



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Session 2: The eye-hand span, gaze, and instrumental performance

Session Chair: Birgitta Burger,
University of Jyväskylä, Finland

17:00 Exploring the eyehand span in scorefree conditions. Experiences with xylophonists and drummers

Francesco Tordini, Fabrice Marandola

17:30 Eye-Hand synchronisation and interpersonal interaction in xylophone performance: A comparison between African and Western percussionists

Fabrice Marandola

18:00 Perceptual acuity and music teaching: Tracking teacher gaze

Travis Marcum, Robert Duke

18:30 Poster Session and ArtLab tours

With light snacks and aperitif

19:30 End of Poster Session

19:50 End of Artlab Tours

Poster Session and Artlab tours

With light snacks and aperitif

Tours – meet at Artlab at any of the following starting times

Led by Alexander Lindau

18:30 - 18:50 Tour 1

18:50 - 19:10 Tour 2

19:10 - 19:30 Tour 3

19:30 - 19:50 Tour 4

(priority for presenters of posters);

19.30 End fo Poster Session

19:50 End of Artlab Tours



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Posters – organized by first author surname

Arndt, Christin; Schlemmer, Kathrin; & Elke van der Meer: **Music in our minds: A pupillometric study of music processing.**

Clendinning, Jane Piper; Hart, Sara; Rogers, Nancy; & Colleen Ganley: **Links between music theory and mathematics: Visual processing and strategies.**

Hammerschmidt, David; Wöllner, Clemens; Albrecht, Henning; & Jesper Hohagen: **Music and slow motion: A study of eye movements in film and video clips.**

Indraccolo, Allegra; Meloni, Roberta; Rizza, Aurora; Brunetti, Riccardo; & Marta Olivetti-Belardinelli: **The influence of musical style on pupil dilation during music perception and recognition: A pilot study.**

Kreysa, Helene; Altmann, Carolin S.; Schneider, Dana; Zäske, Romi; & Stefan R. Schweinberger: **Explicit and implicit judgments of voice attractiveness and trustworthiness: Two pupillometry studies.**

Lange, Elke; Pieczykolan, Aleksandra; Trukenbrod, Hans; & Lynn Huestegge: **The rhythm of cognition – Effects of an external auditory pacemaker on oculomotor control in exemplary cognitive tasks (reading and visual search)**



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Lörch, Lucas; Fehringer, Benedict; & Stefan Münzer: **Reading music. How tonality and notation influence music reading experts' eye movements, pupil dilation and performance in a pattern-matching task.**

Rodziewicz, Agata; Krejtz, Izabela; & Katarzyna Kosmowska: **Similarities between text and music reading.**

Simurra, Ivan Eiji; & João Ricardo Sato: **Analysis of pupil diameter during the listening of orchestral timbres: A case study.**

Skaansar, Jo Fougner; Danielsen, Anne; & Bruno Laeng: **Pupil response reflects processing of musical micro- and polyrhythm. A study of musicians versus non-musicians.**

Tang Poy, Colleen; & Matthew Woolhouse: **The Effect of dance synchrony on perceived levels of attractiveness: A pupillary dilation study.**

Timoshenko, Maria; Björk, Cecilia; & Fritjof Sahlström: **From unknown musical score to mature performance. A mixed-methods study of the learning process in a student choir.**





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Session 3: Working Memory & Attention

Session Chair: Hsin-I Liao,
NTT Communication Science
Laboratories, Japan

10:00 Auditory attention, prediction, and surprise as reflected by eye movements and pupil dilation

Andreas Widmann, Nicole Wetzel,
Erich Schröger

10:30 Dissociating the role of music predictability and liking in motor sequence learning

Roberta Bianco, Ben Gold, Aaron Johnson,
Virginia Penhune

11:00 Physiological signatures of musical memory in frontotemporal dementia

Elia Benhamou, Harri Sivasathiaselan

11:30 BREAK

Coffee and cookies are provided

Session 4: Sight-Reading

Session Chair: Thierry Baccino,
University of Paris VIII, France

12:00 The interplay of rhythm symbols, melodic patterns and expertise during music reading: A review of eye-movement studies in 1994-2017

Marjaana Puurtinen

12:30 Expert musical reading is supported by activation of harmony rules during cross-modal integration

Véronique Draï-Zerbib, Thierry Baccino



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Session 5: Performance & Motion Capture

Session Chair: Fabrice Marandola,
McGill University, Canada

13:00 Statistical modelling of eye movements during simple sight-reading

Anna-Kaisa Ylitalo, Aila Särkkä,
Marjaana Puurtinen, Erkki Huovinen

13:30 LUNCH

Sandwiches and Finger Food are provided
on the fourth floor, Rooms/417-419 and
412-413

14:30 Synchronizing eye tracking and optical motion capture: How to bring them together

Birgitta Burger, Anna Puupponen,
Tommi Jantunen

15:00 Gaze behaviour in musical trios: methodological issues and analytical claims

Sarah Vandemoortele, Kurt Feyaerts, Mark
Reybrouck, Geert De Bièvre, Geert Brône,
Thomas De Baets

15:30 Mapping visual attention of ensemble musicians during performance of „temporally-ambiguous“ music

Laura Bishop, Werner Goebel

16:00 BREAK

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Session 6: Audiovisual Scenes & Film

Session Chair: Jörg Fachner,
Anglia Ruskin University, UK

16:30 Do auditory rhythms influence eye movement statistics?

Michael Plöchl, Jonas Obleser

17:00 Scene perception while listening to music: The eye-tracking study

Marek Franěk, Roman Mlejnek,
Denis Šefara, Jan Petružálek

17:30 Film sound design: Do “sound stems” influence gaze?

Jonathan P. Batten, Tim J. Smith

18:00 Panel Discussion

Discussion to wrap up the conference topic on what eye movements, pupil dilation, and blinking activity tell us about musical processing

Panelists: Thierry Baccino, Birgitta Burger,
Jörg Fachner, Bruno Laeng, Hsin-I Liao,
Fabrice Marandola

Moderators: Lauren Fink & Elke Lange

19:00 END



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