

Haptics for Inclusion

Enhancing Inclusion and Accessibility Through Haptic Technologies
Demonstrations, Workshops, Networking and Collaborative Exploration

6-7 November 2023

UNIVERSITY OF BORÅS

ALLÉGATAN 1, BORÅS, SWEDEN

SYMPOSIUM PROGRAMME

6 November 2023 – Knowledge Exchange

Online via Teams: [Click here to join the meeting](#)

Meeting ID: 315 805 182 917

Passcode: Fmrc8a

[Download Teams](#) | [Join on the web](#)

Room: M401

08:30-08:50 Registration

08:50-09:05 Welcome and Symposium opening

09:05-09:35 Keynote speech: **Astrid Kappers** – Haptic perception and haptic devices for communication

09:40-09:55 **Lloyd May** – Musical Haptics: For and By Who?

09:55-10:10 **Kat Allen** – Haptic communication for Human-Robot Interaction

14:05-14:20 **Karolina Pakėnaitė** – Creating Accessible Tactile Images using Semantic Information from Photographs

10:25 - 10:40 **Lucia Seminara** – TACTA: A Transdisciplinary approach to Haptics

10:40-10:50 Break

10:50-11:00 **Kari Jokstad** – Eikholt - a living lab for co-creation in innovation

10:55-11:10 **Arthur Theil** – Designing Haptic Technologies with and for the Deafblind Community: Recent Advancements and Future Directions

11:10-12:00 **Karin van Dijk & Katharina Kauruff** – Playing flute without arms?!? Adapted music instruments for everyone

12:00-13:00 Lunch

Room: M404

13:00-13:20 **Alin Galateanu** – The ODD Ball

13:20-13:40 **Peter Larsson & Lloyd May** - Reflecting on Co-Design In Musical Contexts

13:40-13:55 **Katerina Valakou** – SHIFT Framework: Enabling Accessibility by Design for the Development in XR Environments

13:55-14:10 **Craig Anderton** – How Commercial Virtual Reality Developers Implement Haptic Feedback

14:10-14:25 **Christina Karpodini** – Vibrotactile wearable systems for non-visual computer interaction with music applications

14:25-14:40 **Calua de Lacerda Pataca** – Enhancing Affective Captions with Haptic Feedback

14:40-14:55 **Joseph Grannum** – Enhancing Accessibility and Inclusion for Elderly Individuals and Disabled in the Aging European Population: A Conceptual Framework for Using Wearable Sensors and Extended Reality

14:55-15:05 Break

15:05-15:35 **Kuai Shen** – Chemical darkness and tactile tactics in ants that smell the rain

15:35-15:50 **Raymond Holt** – Imagining Haptic Technologies for Disability Futures

15:50-16:00 **Johannes Väänänen** – Telehaptic sight revolution

16:00-17:00 Participatory brainstorming and action plans

17:00 Mingle and continuation of networking through direct contacts

7 November 2023

Parallel participatory studies - Closed Sessions

Attendance at these sessions is restricted to study participants.

Venue: DoTank

[Textile Fashion Center](#), Skaraborgsvägen 3A, 506 30 Borås

09:00-09:15 Registration
09:15-09:30 Introduction - MuseIT and purpose for the studies (Plenary session)
09:30-09:40 Room change break

Session A (Room: T369)

09:40-11:45 The study session (including break)

- Short round the table introductions (smaller group)
- Short intro to the session and Informed consent (moderator)
- Presentation of the devices and tools (Damien, and we)
- Hands on testing and experience sharing
- Group discussion and brainstorming

11:45-12:00 Conclusion

Session B (Room: T412)

9:40-9:55 Short round the table introductions, group making (collecting informed consent forms)
9:55-10:15 Short intro to the session 2
10:15-11:15 Hands-on exploration of the artifacts based on 4 experiential levels
11:15-11:45 Group discussion, reflection
11:45-12:00 Conclusion

12:00-13:00 Lunch

Discovery Den

Venue: DoTank

Online connection:

<https://us06web.zoom.us/j/87925274869?pwd=I9bwGdbDsn8BbjJod0TmScBd0Ybmon.1>

Meeting ID: 879 2527 4869

Passcode: hap2023

13:00-13:15 Welcome (Nasrine Olson) Haptic Lab Inauguration (Kim Bolton)

13:15-13:20 Introduction and background

13:20-17:00 **Interactive Demonstrations**

- **Sound & Fashion: Inclusive designing and presenting practices** - Vidmina Stasiulyte (13:20-13:25)
- **Bespoke haptic signals in music translation** - Lloyd May (13:25-13:30)

- **Vibrotactile feedback patterns in a hand-based wearable device with multiple actuators** - Christina Karpodini (13:30-13:35)
- **7sense “HapCap”** - Rolf Lund, Johannes Väänänen, Fereshteh Halimi (13:35-14:10)
- **Adapted music instruments – nothing is impossible** - Karin van Dijk, Katharina Kauruff & Ruud van der Wel (14:10-14:30)
- **Chemical darkness and tactile tactics in ants that smell the rain** - Kuai Shen (14:30-14:35)
- **Vibrotactile technology for emulating Social Haptic Communication** - Myrthe Plaisier (14:35-14:40)
- **Tabletop Testing of Navigation & Feel the Physics: Tactile Presentation of Geophysics Data** - Raymond Holt
- **Hands-on demonstration of handheld controller navigation haptic cues in Virtual Reality** - Craig Anderton
- **AR Demo/Poster: Vision-based Sound Rendering Pipelines for Augmented Acoustics** - Mattia Colombo
- **Active-Proprioceptive-Vibrotactile and Passive-Vibrotactile Haptics for Navigation** - Hassan Dogar
- **Using mid-air haptics for communication** - George Fence
- **Use of Haptic Feedback to Convey a Speaker's Arousal Levels** - Calua de Lacerda Pataca
- **The ODD Ball** - Nasrine Olson for Alin Galateanu



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