

# LONG PAPERS

## Grand Challenges around Designing Computers' Control Over Our Bodies



Grand challenges for systems that act on the body, framing control as relational, dynamic, and embodied across technical, experiential, ethical, and societal dimensions.

Florian 'Floyd' Mueller, Nadia Berthouze, Misha Sra, Mar Gonzalez-Franco, Henning Pohl, Susanne Boll, Richard Byrne, Arthur Caetano, Masahiko Inami, Jarrod Knibbe, Per Ola Kristensson, Xiang Li, Zhuying Li, Joe Marshall, Louise Petersen Matjeka, Minna Nygren, Rakesh Patibanda, Sara Price, Harald Reiterer, Aryan Saini, Oliver Schneider, Ambika Shahu, Phoebe O. Toups Dugas, Don Samitha Elvitigala

Mon, 13 April  
11:15 AM - 11:27 AM  
P1 - Room 118

## "My Tummy Has a Little Dragon": From Everyday Experiences of Gut Sounds to Interoceptive Interaction Design



GastroPod is a wearable system that amplifies gut sounds, helping people listen to digestion in everyday life and explore how internal bodily signals shape awareness, curiosity, and care.

Nandini Pasumarthy, Mia Huong Nguyen, Ashika Ramesh, Maria 'Mafe' Montoya, Rakesh Patibanda, Jessica Danaher, Rohit Ashok Khot, Elise van den Hoven, Florian 'Floyd' Mueller

Tue, 14 Apr  
11:15 AM - 12:45 PM  
Area 1 + 2 + 3: theatre

## GastroConcerto: Towards Designing Dining-Sound Pairings to Support Culinary Creativity



Senses acoustic variations from dining interactions and food materials to assign sounds, exploring how the dining-sound pairing mechanism can support culinary creativity and enrich the dining experience.

Hongyue Wang, Sasindu Abewickrema, Yuchen Zheng, Po-Yao (Cosmos) Wang, Hong Luo, Ziqi Fang, Jialin Deng, Nandini Pasumarthy, Don Samitha Elvitigala, Florian 'Floyd' Mueller

Thu, 16 Apr  
9:00 AM - 10:30 AM  
P1 - Room 133

## Towards Understanding the Design of Mixed Reality Systems to Enrich the Beverage Experience



"XTea" is an adaptive beverage cup-based system that translates natural language input into parameterised modifications to an immersive environment experienced through an XR headset while drinking bubble tea.

Yuchen Zheng, Zhuo Wang, Hongyue Wang, Don Samitha Elvitigala, Florian 'Floyd' Mueller

Wed, 15 Apr  
11:15 AM - 12:45 PM  
P1 - Room 118

# LET'S CONNECT!



Florian 'Floyd' Mueller



Don Samitha Elvitigala



Nandini Pasumarthy



Nathalie Overdevest



Hongyue Wang



Linjia He



Hong Luo



Michelle Cormier



Ziqi Fang



Hatten Omrani



Cerella Chen



Vincent van Rheden



Nilakna Warushavithana



Rusula Oshadha



Sahan Madusanka



Phoebe Toups Dugas



Rakesh Patibanda



Aryan Saini



Maria 'Mafe' Montoya



Po-Yao (Cosmos) Wang



Nouran Sadek



Siyi Liu



Yuchen Zheng



Diena Ramdania



Kenath Perera



Zhuoran Ma



Zoe Xiao Fang



Nilesh Ravishan



Pankaja Balasooriya

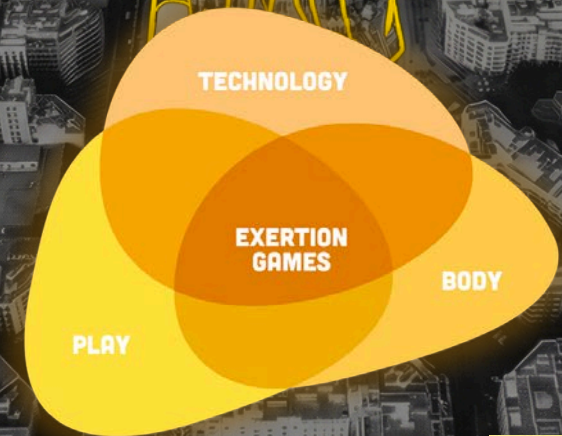


With special thanks to Nimesha Ranasinghe

## CHI 2026 PUBLICATIONS

[www.exertiongameslab.org](http://www.exertiongameslab.org)

# EXERTION GAMES LAB



# LONG PAPERS (CONT'D)

## CoMap: A Collaborative 3D Sketch Mapping Game to Engage Spatial Communication in Search and Rescue



[Honourable Mention] 

To support future rescue operations, we developed a 3D augmented-reality to enable shared map drawing between responders & commanders.

Fri, 17 Apr 11:15 AM-12:45 PM  
P1 - Room 131

Tianyi Xiao, Sailin Zhong, Peter Kiefer, Miki Mizuki, Phoebe O. Toups Dugas, Martin Raubal

## Deciding Movement Together: Designing Bodily Co-Performance with System-Initiated Movement



Explores exoskeleton-based play where systems initiate movement, revealing how shared motor control shapes agency, ownership, and embodied interaction.

Fri, 17 Apr  
11:15 AM - 12:45 PM  
P1 - Room 131

Zhuying Li, Tianze Huang, Rakesh Patibanda, Florian 'Floyd' Mueller

## Radical Gender Neutrality: Agender Euphoria in Gaming and Play Experiences



Explores agender euphoria: powerful feelings of happiness derived from gender-free embodiments, spaces, & activities in play.

Tue, 14 Apr  
11:15 AM - 12:45 PM  
P1 - Room 112

Katie Seaborn, Shano Liang, Rua Mae Williams, Phoebe O. Toups Dugas

## Nudging the Somas: Exploring How Live-Configurable Mixed Reality Objects Shape Open-Ended Intercorporeal Movements



GravField explores how live-configurable mixed reality objects nudge intercorporeal movement, enabling open-ended group coordination through audiovisual cues.

Thu, 16 Apr  
9:00 AM - 10:30 AM  
P1 - Room 133

Botao Amber Hu, Yilan Elan Tao, Rem RunGu Lin, Mingze Chai, Yuemin Huang, Rakesh Patibanda

## The Three Steps to Trans Death: Introducing Trans Cyber-Necropolitics in Digital Media



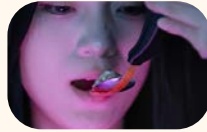
This *ToCHI* paper addresses how online systems continue to propagate harms to transgender people, acting as what Mbembe calls a "war machine."

Wed, 15 Apr  
2:15 PM - 3:45 PM  
M2 - Room M211/212

Shano Liang, Michelle V. Cormier, Phoebe O. Toups Dugas, Rose Bohrer

# INTERACTIVE DEMOS

## The Wizard of Taste: Demonstrating Multisensory Eating with Electrical Taste and Bone-conduction Auditory Seasoning



A spoon-based interface that combines electrical taste stimulation and bone-conduction audio to create three immersive eating experiences.

Mon, 13 Apr 6:00 PM - 7:30 PM  
Tue, 14 Apr 4:30 PM - 6:00 PM  
Wed, 15 Apr 2:15 PM - 3:45 PM  
Area 1 + 2 + 3: demos

Ziqi Fang, Hongyue Wang, Nilakna Disiwari Warushavithana, Nilakna Disiwari Warushavithana, Jialin Deng, Weijen Chen, Don Samitha Elvitigala, Florian 'Floyd' Mueller

With special thanks to Nimesha Ranasinghe

## The Future Smart Shoe: Demonstrating Sensing-to-Actuation Prototypes.



An interactive demonstration of four prototypes that consolidate decades of research on smart insole-based augmented foot interfaces.

Mon, 13 Apr 6:00 PM - 7:30 PM  
Tue, 14 Apr 4:30 PM - 6:00 PM  
Area 1 + 2 + 3: demos

Marco Gabrecht, Ruben Schlonsak, Troy Nachtigall, Don Samitha Elvitigala, Denys J.C. Matthias

# POSTERS

## InBite: Towards Designing Real-time Configurable Auditory Dining Experience for Each Bite



InBite captures diners' sensory experiences and generates AI music that dynamically adjusts based on their eating state and trajectories.

Mon, 13 Apr | 2:15 PM - 3:45 PM  
Mon, 13 Apr | 4:30 PM - 6:00 PM  
Area 1 + 2 + 3: posters

Hongyue Wang, Yuting Wu, Subasinghe Piyarathnage Sahan Madusanka, Ziqi Fang, Yuchen Zheng, Hong Luo, Jialin Deng, Don Samitha Elvitigala, Florian 'Floyd' Mueller

## Dreamware: A Brain-Computer-Interfaced Multisensory Capsule Room for Dream Engineering



Dreamware enables programmable dreams using EEG sensing and multisensory stimulation for real-world dream engineering applications.

Mon, 13 Apr | 2:15 PM - 3:45 PM  
Area 1 + 2 + 3: videos

Xiao Zoe Fang, Duoduo Li, Tian Zhou, Michaela Jayne Vranic-Peters, Nathan Arthur Semertzidis, Po-Yao (Cosmos) Wang, Yanming Zhu, Florian 'Floyd' Mueller, Adam Haar Horowitz, Nathan W. Whitmore, Jiajun Bu

# MEET-UP

## SportsHCI Meet-Up: Exploring the Role of AI in the Evolving World of SportsHCI

This meet-up aims to bring together the SportsHCI community and engage adjacent communities including User-centered AI, MobileHCI, CHI PLAY, ISWC-Ubicomp, and Augmented Humans.

Vincent van Rheden, Michelle Adiwangsa, Maria F. Montoya, Ian Smith, Don Samitha Elvitigala, Daniel Harrison, Amon Rapp, Alexander Meschtscherjakov, Florian 'Floyd' Mueller

Tue, 14 Apr | 4:30 PM - 6:00 PM, P1 - Room 131

Jogging@CHI, Tue 14 Apr | 06:10 PM | Outside P1.131

Go jogging@CHI around the conference venue after the SportsHCI Meet-Up). Come in your jogging gear.

# WORKSHOPS

## Next Steps for Augmented Reality On-the-Move: Challenges and Opportunities



This workshop focuses on AR on-the-move, examining how AR can support interaction in dynamic settings where environmental and social contexts shift rapidly and users are in locomotion.

Thu, 16 Apr | 2:15 PM - 3:45 PM  
Thu, 16 Apr | 4:30 PM - 6:00 PM  
P1 - Room 120

Helen Stefanidi, Vincent van Rheden, Linjia He, Michelle Adiwangsa, Jan-Hendrik Sünderkamp, Alina Itzlinger, Andrii Matviienko, Julie R. Williamson, Ian Oakley, Markus Tatzgern, Alexander Meschtscherjakov

## From Movement to Sound and Back: A Workshop on Movement-Based and Sonification Design Approaches



Movement and sound are deeply connected. This playful workshop brings together sonification, music, and movement communities for hands-on exchange.

Wed, 15 Apr | 2:15 PM - 3:45 PM  
Wed, 15 Apr | 4:30 PM - 6:00 PM  
P1 - Room 128

Michael Reichmann, Vincent van Rheden, Maria F. Montoya, Hakan Yilmazer, Daniel Hug, Hongyue Wang, Nina Schaffert, Laia Turmo Vidal, Alexander Meschtscherjakov, Florian 'Floyd' Mueller

## Body Transformation Experiences: A workshop on How to Elicit, Assess and Support them through Multisensory Technology



Exploring how multisensory technologies can elicit, assess, and support Body Transformation Experiences through design, theory, methods, and lived experience.

Mon, 13 Apr | 2:15 PM - 3:45 PM  
Mon, 13 Apr | 4:30 PM - 6:00 PM  
P1 - Room 111

Ana Tajadura-Jiménez, Elena Márquez Segura, Marte Roel Lesur, Laia Turmo Vidal, Alice Haynes, Frederic Bevilacqua, Nadia Bianchi-Berthouze, Aneasha Singh, Pedro Lopes, Jun Nishida, Don Samitha Elvitigala, Paul Strohmeier

# STUDENT MENTORING

## Understanding the Impact of HMD Notification on User Attention in Outdoor Cycling



This research aims to examine how HMD notifications affect user attention and cycling experience, offering design insights to guide AR integration in cycling and other on-the-go activities.

Wed, 15 Apr | 3:31 PM - 3:33 PM  
Wed, 15 Apr | 5:46 PM - 5:48 PM  
Banquet Hall

Linjia He