



MOCO'26 In the pink of Health: Conference programme

Conference Day 1 – Thursday 23 April	
Location: Cité des Arts	
Time	Programme
8.00 – 8.30	Conference registration - Coffee & tea
8.30 – 9.00	Welcome to MOCO'26 – Patrice Guyot – Grégoire Bosselut – Director CDA
9.00 – 10:30	<p>Doctoral Consortium: MOCO Emerging Scholars Chairs: Théo Velletaz, Martin Leguennec</p> <p>5 min + 2 min Q&A</p> <ul style="list-style-type: none"> • Brenda San Germán Bravo. Body-Informed Effects for Supporting Emotional Self-Regulation in a Mixed Reality space • Théo Dupuy, Victor Lopes de Souza. Cautious predictions to support decision makers in movement-related areas. • Lili M. Rampre. Cyborg Sensing: A Kinotechnic Inquiry into the Epistemic Infrastructures of Movement and Perception. • Léo Chédin. Exploring Choreographic Processes Involving AI. • Atilla Juliana Vrasdonk et al. Kinetic Energy and Flow in Co-Improvising Flamenco Dyads. • Romaric Sichler. Learning to Teach Gestures: Adaptive Feedback for Human–Machine Co-Learning in craft. • Léo Mercier et al. Movement Sonification Integrated to Rehabilitation-Readaptation. • Roos Van Berkel. Moving with Care: The Agency of Digital Movement in Socio-Material Practices. • Botao 'Amber' Hu. On Improvisation and Open-Endedness: Insights for Experiential AI. • Hanna Zhu. The Posthuman Fusion: Human-AI Co-creation for Movement Arts incorporating Embodied Affect and Cultural Intent.

	<ul style="list-style-type: none"> • <u>Hadil Abba et al.</u> The Sense of Touch in Healthcare HAPTIMED: A Digital Twin of Haptic Perception for Educational Purposes -
10.30 – 11.00	Coffee Break
11.00 – 12.30	<p>Paper Session #1 - <i>Embodied Interaction, Movement & Perception</i> Chair: TBA 12 min + 3 min Q&A</p> <ul style="list-style-type: none"> • <u>Lottridge et al.</u> Moving Contexts: How Culture, Context, and Movement Histories Shape Whole-Body Interaction in Aesthetic Environments • <u>Preisler et al.</u> When Bodies Resonate in Sound: Sonifying Interpersonal Movement Dynamics in Dance • <u>Weber et al.</u> Dynamic Abstract Avatars Impact Dancers' Sense of Embodiment and Movement Choices • <u>Mardamootoo.</u> Moving Through Volume • <u>De Blanc.</u> Weight-sharing trust and wooden floors: Identifying moderating factors in physically integrated dance • <u>De Blanc et al.</u> Automatic and perceptual assessment of motion coordination in dyadic dance
12.30 – 14.00	Lunch Break
14.00 – 15.30	<p>Paper Session #2 - <i>Dance, Choreography & Creative Practice with Technology</i> Chair: TBA 12 min + 3 min Q&A</p> <ul style="list-style-type: none"> • <u>Rajko et al.</u> Choreographic and Improvisational Approaches To Interrogating Robotic Systems • <u>Correia et al.</u> Fantasies, Obscurities and (Dis)Connections: Three Case Studies of Dance Artists' Creative, Embodied and Political Engagement with AI • <u>Hou.</u> Playing the Museum: The Body as Interface with Central African Traditions • <u>Stergiou et al.</u> Digital Queens: A case study on cloth simulation, motion capture and XR technologies for addressing costume-choreography challenges • <u>Baltas.</u> Extending the Site: XR modalities for Site-Specific Dance – A Comparative Study of XR Technologies in Studio-Based Practice • <u>Sicchio.</u> p5score: A Computational Framework for Choreographic Notation and Real-Time Movement Composition
15.30 – 16.00	Coffee Break
16.00 – 18.00	<p>Practice Works and Posters</p> <p>Practice Works #1- Chair: Julien Laroche</p> <ul style="list-style-type: none"> • START: Science, arT, reseARch and Transgression

- PosePilot-GOM: A Web-based application for dexterity analysis of human movement
- A pen "IMU inside" : a Sensor-Enhanced Pen for Exploring Sound While Writing
- PosePilot-Ergo: A web-based application for ergonomic analysis and human motion quantification
- PyEyesWeb: An open source toolkit for multimodal movement feature extraction
- Drifting Bodies Through Algorithms

Poster #1 - Chair: Stéphane Perrey

- Gasparotti et al. Effects of cognitive-motor training in virtual reality on anticipatory brain functions and balance of professional dancers
- Lozano-Goupil et al. Video-Based Motion Capture and Social Signal Processing for Detecting Psychosis Risk
- Rokeby et al. Enriching the Kinematic: Approaching New Methods for Machine Learning with Bodies That Move at the Edge
- Zhu. How AI Leads in Creative Practice: From Mentorship Dialogues to Extended Narratives
- Whatley et al. Dance, disability and robots: interdisciplinary possibilities for reframing 'healthy bodies' in performance
- Chiu. Embodied Ethics in Digital Futures: Choreoethics and Motion Capture in Digital Dancescapes
- Ayache et al. The Choreography of Thought: How Interpersonal Coordination Reveals Shared Cognition
- Sutton-Chanari et al. On the fractal complexity of sacrum motion during walking
- Ioannis. Musicians' Movement Repertoires and Emergent Coordination: Scapular Kinematics, EMG, and Struggle in Higher Music Education
- Zhang. Reframing Human–Machine Movement through Laban Spatial Logic: Toward a Temporal and Embodied Framework of Relational Vitality
- Daveau et al. Embodied Gestures: recognizing static hand movements with lightweight neural models
- Taleb-Salah et al. Motion Capture for Ergonomic Assessment: Inertial vs. Computer Vision Based on YOLOv11
- Pyaraka et al. Humanoid Robot Navigation in Shared Care Spaces: A Human-Aware Navigation Framework and Implementation
- Chafik et al. IMU-Based Detection of Load Carriage for Ergonomic Risk Assessment
- Lahya et al. Deep Learning for Physical Load Estimation: Insights from ViLoad Video Dataset

19.00 Evening	Gala
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Conference Day 2 – Friday 24 April Location: Cité des Arts	
8.30 – 9.00	Conference registration - Coffee & tea
9.00 – 12.00	<p>Practice Works and Posters</p> <p>Practice Works - Chair: Patrice Guyot</p> <ul style="list-style-type: none"> • Tethered: Biophysical Sensing toward Affective Somatic Integration • Holding Time Main-Tenant as a Practice of Palliative Health • Creative Movement Hacking: Can We Combine Ideokinesis and Immersive Technologies to Enhance Embodiment? • Creativity Tools for Movement-based Artistic Practices in Extended Reality: Performances based in Fantasticos • The Emergence of a Dance: A Sensitive Experience of Movement • The Z of Touch: Crystallizing the Interoceptive Axis of Blended Touch <p>Poster #2 (10:00 – 12:00) - Chair: Stéphane Perrey</p> <ul style="list-style-type: none"> • <u>Kobayashi et al.</u> GenreMix Analyzer: Visualizing Probabilistic Composition of Dance Styles for Supporting Dance Learning • <u>Laroche et al.</u> Multi-agent Coordination in Shared Hybrid Spaces - How Digital Environments and Adaptive Agents Shape Collective Embodied Timing • <u>Skjeldal et al.</u> Studying Embodied Expression in Drumming for Virtual Systems • <u>McKendrick et al.</u> Don't Let Me Be Misunderstood: Guiding Acting Practice through Negative Robot Behaviour and Contextual Intentions • <u>Grebel et al.</u> Battles as Interactive Ecologies: Designing with Embodied Roles in Hip-Hop Performance • <u>Glover et al.</u> Sample entropy analysis of variability in sit-to-stand-to-sit movements of people with or without chronic pain • <u>Faux et al.</u> Dynamical 2D-DFA for movement analysis in obstetrics • <u>Kolokotroni et al.</u> Illuminating Emotions: Evaluating the Emotional Impact of Lighting on Animated Characters in Animation and Video Games through Motion Capture • <u>Neville.</u> Agiles: Creativity and Mobility through embodied participation in Immersive Environments • <u>Vincs et al.</u> Virtual Volumetric Bodies Interacting with Squishy Balls and Shiny Fish: Towards a more inclusive XR interaction system • <u>D'adamo et al.</u> SoniFootsteps: Movement-Triggered Footstep Sounds to Modulate Body-Weight Perception, Gait and Emotion

	<ul style="list-style-type: none"> • <u>Soga and Sra.</u> VR Dance Puppet: Movement Creation by Controlling Partial Body Parts Using a VR Device • <u>Stein et al.</u> Tapxophone: Towards Engaging Finger Rehabilitation using Computer Vision and Music • <u>Hollerweger et al.</u> Streaming Open Sound Control data from a commercially available IMU suit in real time for performative sonic arts projects • <u>Gong et al.</u> DVF-Generator: A Physics-Aware Conditional Generative Model for Respiratory Motion Synthesis in Liver SPECT
12.15 – 13.30	Lunch Break
13.30 – 15.30	<p>Paper Session #3 - Machine Learning, AI & Generative Systems for Movement</p> <p>Chair: Gérard Dray</p> <p>12 min + 3 min Q&A</p> <ul style="list-style-type: none"> • <u>Lawrence et al.</u> Interactive Machine Learning can recognise complex movements, but does it make us happy? • <u>Yang et al.</u> Designing Generative AI for Real-Time Multi-User Interaction in Co-Creative Dance • <u>Faurent et al.</u> Learning Human Rhythmic Movements: Adaptive CPGs for Synchronized Virtual Agents • <u>Akbas et al.</u> Cross-Modal Retrieval-Augmented Generation for Craft Gestures Learning: Enabling Dialogue with Multimodal Pedagogical Contents • <u>Trolland et al.</u> Exploring Movement-Led Co-Design for Interactive Lighting in Performance • <u>Beller.</u> Exploring “Synekinian Pairs”: Manual-Vocal Gesture Integration in Experimental Contexts
15.15 – 16.30	<p>Keynote #1</p> <p>A. Refsum Jensenius / L. Bishop - Chair: J. Laroche</p> <p>50 min + 20 min – Title TBA</p>
16.30 – 17.00	Coffee Break

17.30 – 19.00	Performance Promenade <ul style="list-style-type: none"> • ZAGHAREED: A Human and AI Co-Created Film Extending a Dance • The origins of intelligence: A performative statement on the primacy of movement • Real-Time Full-Body Multi-Player Interaction with AI Dance Models • Performance of "SensualMap 2.0 Meets The Source" • The Emergence of a Dance: A Sensitive Experience of Movement • The Body Knows the Pattern: A Performance System Exploring Gesture Mapping and Embodied Rhythm • The mv lab spatial trainer MR demo • Sonification of dance during the performance promenade • Anonymous - A Participatory Installation for Creative Improvisation
19.00+	Dinner on your own
20.30	

Conference Day 3 – Saturday 25 April	
Location: Cité des Arts	
8.30 – 9.00	Conference registration - Coffee & tea
9.00 – 10.30	Paper Session #4 - XR, Virtual Environments & Multimodal Interaction Systems Chair: TBA 12 min + 3 min Q&A <ul style="list-style-type: none"> • <u>Gaugne et al.</u> Blow based collaboration in a digital art virtual environment • <u>Saint-Cast et al.</u> A Full-Stack Web-Based Ecosystem for Movement-Sound Interactions • <u>McKendrick.</u> Mask Work and Performance Techniques for VR Embodiment • <u>Guo et al.</u> Liquid Connections: Reimagining Social Touch in Virtual Reality • <u>Brendel et al.</u> Low-Latency Real-Time Volumetric Reconstruction for Interactive and Dynamic Stage Productions • <u>Odonnell et al.</u> Gesture Mapping for Embodied Rhythmic Expression: A Case Study on Expressive Affordances
10.30 – 11.00	Coffee Break
11.00 – 12:10	Keynote #2 V. Cochen De Cock / B. Bardy - Chair: J. Laroche 50 min + 20 min – Title TBA
12.15 – 13.30	Lunch
13.30 – 15.00	Paper Session #5 - Human-Robot Interaction & Bio-Inspired Systems

	<p>Chair: TBA</p> <p>12 min + 3 min Q&A</p> <ul style="list-style-type: none"> • <u>Ouhssain et al.</u> Reinforcement Learning with Musculoskeletal Models to Study Fatigue Effects on Human Muscle Synergies • <u>Alcubilla et al.</u> Designing Relational Care: Speculative and Participatory Approaches to Movement-Based Human-Robot Interaction through the Performing Arts • <u>Guevara.</u> Reflections: Health, Technology, and the CCL Experience • <u>Hu et al.</u> “We Move Like an Octopus”: Exploring Decentralized Tentacular Coordination via Inter-Bodily Electromyostimulation Relays X • <u>Neuhauser et al.</u> Estimating Piano Piece Difficulty via Embodied Robotic Hand Performance Analysis
15.00 – 16.30	<p>Practice Works and Posters</p> <p>Practice Works - Chair: Leonardo Montecchia</p> <ul style="list-style-type: none"> • Interactive Dance Performance as a Dialogue: Choreographing through Sound and Grief • Gone Fabulous VR: Virtual Reality Installation through Choreographic Process • SyncOff™ A Speculative Symposium on Coordination Collapse <p>Poster #3 - Chair: Stéphane Perrey</p> <ul style="list-style-type: none"> • <u>Tadayoni et al.</u> SensualMap 2.0 Meets The Source • <u>Di Donato et al.</u> British Sign Language in Embodied Music Interaction: An exploratory study of British Sign Language music interpretation • <u>Marin-Bucio.</u> Machinic Movement Matrix: A framework and tool for human-AI dance creation • <u>Ardaiz et al.</u> Teams of Sport Science and Computer Engineering Students Learning Together • <u>Bosselut et al.</u> Exploring multimodal neurophysiological synchrony and behaviour in choir performance: a preliminary study. • <u>Siman.</u> The Recorded Performance as Virtual Event: Archival Vitality in Preljocaj's Swan Lake • <u>San German Bravo et al.</u> Laban Inspired Visual Effects Influence Perception and Movement • <u>Akbas et al.</u> Reflective Embodiment through Avatar Abstraction: Insights from Movement Practitioners • <u>Kantan.</u> Beyond Deterministic Mappings: Audiovisual Correspondence in Movement-Controlled Generative Music • <u>Corbellini et al.</u> Slow Mood, Aesthetic Resonance, and Embodied Interaction: Design Principles for Art-Aided Rehabilitation

16.30 – 17.30	<p>Paper Session #6 - Movement Analysis, Motion Capture & Computational Modeling</p> <p>Chair: TBA</p> <p>12 min + 3 min Q&A</p> <ul style="list-style-type: none"> • <u>Pilkov <i>et al.</i></u> Estimating Pianists' Hand and Finger Kinematics with Markerless Motion Capture • <u>Pataranutaporn <i>et al.</i></u> Phylogenetic Tree of Dance: Computational Reconstruction of Movement Lineages Through Motion Capture Analysis • <u>Serdar <i>et al.</i></u> Mixed Method Audio-Video Analyses of Felt Togetherness in a Networked Music-Dance Performance
17.30 – 18.00	Ending Remarks – Closing MOCO 10th
18.00	Jam session