ICSC 2024 Conference Program

(as of August 15, 2024)

Conference site:
European University of Rome, Via degli Aldobrandeschi 190, Rome

Monday, September 9

From 09:00	Foyer **WELCOME DESK**	
10:00 – 12:30	Session room 1 **TUTORIAL** ***Neuroimaging of space for beginners:*** ***a tutorial for graduate students and cognitive neuroscience instructors*** Organizers: Franco Delogu & Franco Pestilli	
12:30 – 13:30	Auditorium **WELCOME SESSION** **Chair:** *Marta Olivetti Belardinelli* (ICSC 2024 Presidential Board, Sapienza University of Rome) **Official greetings by:** *Riccardo Brunetti* (ICSC 2024 Presidential Board, European University of Rome) *P. Pedro Barrajón Muñoz* (Rector of the European University of Rome) *Anna Maria Giannini* (Director of the Dept. of Psychology, Sapienza University of Rome) *Matilde Bini* (Director of the Dept. of Human Sciences, European University of Rome) *Antonino Raffone* (Director of ECONA, Sapienza University of Rome)	
13:30 – 14:30	**LUNCH BREAK**	
14:30 – 15:30	Auditorium **KEYNOTE LECTURE 1** **Faggin:** ***Information and meaning***	
15:30 – 17:30	Session room 1 **SYMPOSIUM 1** ***Near and far memories: Learning and memory within and beyond peripersonal space*** Convenor: *Brozzoli*	Session room 2 **TALK SESSION 1** ***Attention & perception 1***
15:30 – 15:50	*#87 - Brozzoli:* Associative learning in peripersonal space: fear responses are acquired in hand-centered coordinates	*#53 - Schalbetter et al.:* Using 3D Point Cloud-Based VR-Landscapes to study the role of landscape elements on perception and physiology
15:50 – 16:10	*#37 - Zafarana et al.:* Visual perceptual learning is enhanced by training in the illusory far space	*#62 - Pastwa et al.:* Visual search for emotional targets in real-life, color-modified pictures: an exploration of visual attention properties
16:10 – 16:30	*#33 - Gervasi et al.:* Spatial demonstratives and physical control (beyond the body)	*#92 - Vecchiato:* Architectural experience modulates EEG responses during the observation of body expressions in virtual reality
16:30 – 16:50	*#46 - Dutriaux et al.:* Disentangling reference frames in the neural compass during memory retrieval	*#107 - Ledneva:* Action verbs and demonstrative pronouns interactively affect volumetric affordance activation
16:50 – 17:30	**TEA BREAK**	
17:30 – 18:30	Auditorium **KEYNOTE LECTURE 2** **Posner:** ***Orienting of attention and spatial cognition***	

Tuesday, September 10

	Session room 1	Session room 2
09:00 – 10:20	**SYMPOSIUM 2** ***Spatial cognition, neuroscience, and architecture*** Convenors: *Vecchiato & Bruno*	**TALK SESSION 2** ***Learning & skills***
09:00 – 09:20	*#102 - Gepshtein:* The built environment through the lens of psychophysics	*#2 - Crivelli & Balconi :* Testing a neuroassessment task for spatial attention skills in combat sports
09:20 – 09:40	*#56 - Committeri & Tosoni:* The macro-affordance effect: characteristics, neural correlates and role in the built environment	*#6 - Shakerian et al.:* Enhancing spatial abilities through playing racket sports
09:40 – 10:00	*#85 - Guerra et al.:* The impact of architectural experience on interaction possibilities	*#77 - Maquet et al.:* The Impact of an Intervention for Improving spatial cognition among adolescents
10:00 – 10:20	*#67 - Canepa et al.:* Exploring emotional and neurophysiological responses to architectural atmospheres	*#90 - Saracini & Lucero:* Exploring the correlation between visuospatial inhibitory control and cognitive flexibility performance
10:20 – 11:00	**COFFEE BREAK**	
11:00 – 12:20	**SYMPOSIUM 2** (continued)	**TALK SESSION 3** ***Reasoning, problem-solving, & decision making***
11:00 – 11:20	*#28 - Djebbara:* Shared rhythms between the brain and the environment	*#38 - Lorette et al.:* Language learning and cognitive restructuring: bilinguals' motion event conceptualisation
11:20 – 11:40	*#138 - Bertoni et al.:* Designing and evaluating architectural experiences	*#78 - Duffy et al.:* The link between spatial cognitive skills and problem-solving among engineering students
11:40 – 12:00	*#68 - Bower:* From laboratory to real world: the impact of built environment scale in controlled and naturalistic settings	*#115 - Quinton et al.:* Manipulating decision trajectories by altering task topology: empirical mouse-tracking studies and dynamical system model
12:00 – 12:20	*#109 - Pasqualini:* Multisensory environments and their implications for design	*#122 - Grant et al.:* Do problem gamblers see a different game? Segmentation, binding, and the illusion of near-wins.
12:30 – 13:30	Auditorium **KEYNOTE LECTURE 3** **Fabrikant: *Towards neuroadaptive navigation assistance to reduce spatial de-skilling***	
13:30 – 14:30	**LUNCH BREAK**	
14:30 – 15:30	Auditorium **KEYNOTE LECTURE 4** **Von der Malsburg: *How are segmentation and binding computed and represented in the brain?***	
15:30 - 16:50	**TALK SESSION 4** ***Attention & perception 2***	**POSTER SESSION 1** ***Mental representation, reasoning, & navigation***
15:30 – 15:50	*#91 - Mori et al.:* Anisotropy of the scintillating grid illusion in monocular vision	*#7 - Nuhn et al.:* Mapping and modelling of landmark modalities *#10 - Acconito et al.:* Perceptual biases and individual differences during a visual decision-making task *#15 - Fernández Méndez et al.:* Mental rotation, strategy induction and sex differences: an eye-tracking analysis *#22 - Kapaj et al.:* Long-term retention of landmark and route knowledge acquired during a real-world map-aided navigation task. *#23 - Hilton et al.:* Realistic landmark symbols on a map provide implicit, but not explicit, benefits during spatial navigation. *#51 - Izadifar et al.:* Immersive virtual reality-based allocentric spatial cognitive training on improving ToM in children with autism *#80 - Zhang et al.:* The occipital lobe as neural reference in an intercultural fMRI study *#96 - Edgar et al.:* Situation awareness and understanding: the effects of training and culture on perceiving and understanding the real world *#97 - Carey:* A new approach detecting temporal regularities in time series of behavioral and electrophysiological data
15:50 – 16:10	*#94 - D'Angiòa et al.:* The role of spatial attention in visual short-term memory and visual consciousness: an ERP change detection study.	
16:10 – 16:30	*#111 - Sayim & Hansmann-Roth:* Redundancy masking in segmented parts: how grouping determines the units of information compression in the visual system	
16:30 – 16:50	*#113 - Ponce et al.:* Peripheral cue modulation over spatial interference: attentional mechanisms triggered by gaze and arrows	
16:50 – 17:30	**TEA BREAK**	
17:30 – 18:30	Auditorium **KEYNOTE LECTURE 5** **Luck: *Visual working memory: from random arrays of colored squares to complex, spatially structured natural scenes***	

Wednesday, September 11

	Session room 1	Session room 2
09:00 – 10:20	**SYMPOSIUM 3** ***Visual short-term memory binding in normal ageing and Alzheimer's disease*** Convenors: *Parra & Della Sala*	**TALK SESSION 5** ***Orientation, exploration, & navigation 1***
09:00 – 09:20	*#125 - Della Sala:* Temporary memory binding, normal and pathological: an overview	*#5 - Vol & Maidenbaum:* How do augmented obstacles influence humans' spatial behavior?
09:20 – 09:40	*#132 - Bastin:* Conjunctive and relational visual short-term memory binding in normal ageing	*#30 - Evans et al.:* Differences in gaze transition frequencies across spatial gist boundaries
09:40 – 10:00	*#131 - Coco:* Integrating object semantics into naturalistic contexts across healthy and pathological cognitive ageing	*#74 - Talbot et al.:* Hide and seek: exploring the influence of other agents during search and concealment
10:00 – 10:20	*#123 - Parra:* Visual short-term memory binding in Alzheimer's Disease (AD)	*#121 - Schomaker & van der Ham:* Individual differences in human spatial exploration
10:20 – 11:00	**COFFEE BREAK**	
11:00 – 12:20	**SYMPOSIUM 4** ***Empowering lives: navigating the future of assistive technology*** Convenors: *Lancioni & Desideri*	**TALK SESSION 6** ***Frames of reference***
11:00 – 11:20	*#13 - Scherer:* Technology complexity & overload: effects on people with cognitive disabilities	*#43 - Dordoy et al.:* Statistical learning in allocentric space: examining the role of peripheral environmental cues
11:20 – 11:40	*#136 - Riccio et al.:* Brain-Computer Interface as an Assistive Technology solution for people with severe motor disabilities and disorders of consciousness	*#59 - Esposito & Gori:* Egocentric and allocentric abilities share a common process in the acoustic modality, but not in the visual modality
11:40 – 12:00	*#137 - Di Fuccio:* Tangible User Interfaces in educational settings: a multisensory approach embracing the digital and real world	*#64 - Taffout et al.:* Reducing action capacity of the dominant arm extends peripersonal space around the head
12:00 – 12:20	*#14 - Stasolla et al.:* Technological Solutions for helping persons with neurological impairments	*#117 - De Pastina et al.:* The remapping of peripersonal space after stroke, spinal cord injury and amputation: a systematic review
12:30 – 13:30	Auditorium **KEYNOTE LECTURE 6** **Iachini:** ***Spatial memory and frames of reference: how deeply do we rely on the body and the environment?***	
13:30 – 14:30	**LUNCH BREAK**	
14:30 – 15:30	Auditorium **KEYNOTE LECTURE 7** **Landau:** ***Geometry and function in spatial terms: core and more***	
15:30 – 16:50	**TALK SESSION 7** ***Mental representation 1***	**POSTER SESSION 2** ***Attention, perception, & searching***
15:30 – 15:50	*#20 - Pauly & Schwan:* Event segmentation of dynamic maps: Expectations and saliency impact parsing of spatiotemporal data	*#3 - Rovelli et al.:* Neuroarchitecture study: Academic Spaces' Impact on Neurophysiological processes *#16 - Wielgopolan & Imbir:* Emotional ambiguity and the effectiveness of the Visual Search task *#47 - Radakulan:* Human sensitivity to the forced perspective illusion: A psychophysical study using virtual reality *#48 - Persichetti et al.:* Visual attention modulates perception of scenes more than faces: neural and behavioral evidence *#69 - Chacón Candia:* Individual differences in social attention: associations with sex, sex-role, social skills and academic background *#70 - Boussard et al.:* A fresh take on tool-use effect on perceived distance: reexamining the role of intention *#82 - Bonventre et al.:* Implicit biological motion processing: a link between spatial attention and social cognition in Multiple Sclerosis *#106 - Miola & Pazzaglia:* The relationship between restorativeness, environment quality indicators, and wellbeing: a study in northeast Italy *#119 - De Martino et al.:* The beat goes on: exploring interoception's influence on temporal experience after spinal cord Injury
15:50 – 16:10	*#63 - Coen-Cagli:* Understanding the time course and spatial biases of natural scene segmentation	
16:10 – 16:30	*#65 - Pagano et al.:* Students' understandings of static and dynamic spatiotemporal data visualizations	
16:30 – 16:50	*#103 - Soyer:* Bubbles revisited: a computational model for binding features, objects and locations	
16:50 – 17:30	**TEA BREAK**	
17:30 – 18:30	Auditorium **KEYNOTE LECTURE 8** **Feldman:** ***AI and the mysteries of visual experience***	

Thursday, September 12

	Session room 1	Session room 2
09:00 – 10:20	**SYMPOSIUM 5** ***Factors that mediate between environment and spatial cognition*** Convenors: *Palmer et al.*	**TALK SESSION 8** ***Time processing***
09:00 – 09:20	*#50 - Palmer et al.:* New findings on the interaction of environment and spatial cognition.	*#81 - Lasaponara et al.:* Space is a late heuristic of elapsing time: ERPs evidence from the STEARC effect.
09:20 – 09:40	*#60 - Knudsen et al.:* Re-framing Frames of Reference: 30 years of Man and Tree	*#84 - Malyshevskaya et al.:* Age and physical activity modulate time perception
09:40 – 10:00	*#32 - Ennever:* Pointing practices amongst Kukatja speakers and what they reveal about underlying preferences in spatial cognition.	*#98 - Zhao:* The temporal transition zone: a gradual approach to a subjective set-point within the three-second time window
10:00 – 10:20	*#9 - Meakins:* Geocentric languages and the perception of the earth's magnetic field	*#133 - Guelton:* Metric and temporal relationships in collaborative map drawings
10:20 – 11:00	**COFFEE BREAK**	
11:00 – 12:20	**SYMPOSIUM 5** (continued)	**TALK SESSION 9** ***Development & aging***
11:00 – 11:20	*#40 - Knudsen & Palmer:* Environmental sensitivity and conceptual representations of geocentric spatial terms in Wik-Mungkan (Australia)	*#26 - Kosmidis & Lambrinos:* Elementary Students' Problem-Solving with Graphical Representations: The role of Spatial Reasoning and Perception
11:20 – 11:40	*#25 - Cerqueglini:* Spatial Language, Cognition, and Environment across Negev Arabic Tribal Varieties	*#45 - Salo:* Neurocognitive predictors of exploratory impairment in older adults
11:40 – 12:00	*#73 - Obert & Burenhult:* Between Brain and Terrain: Investigating Linguistic Representation of Environments During Motion	*#75 - Oh & Mechery:* Neural basis of visual statistical learning during n-back working memory in cognitively healthy young and older adults
12:00 – 12:20	*#19 - Fernandez Velasco:* Mental maps and environmental experience: an analysis of the wayfinding culture of Evenki reindeer herders and hunters	*#79 - Bénard Linh Quang et al.:* Virtual Environments for Spatial learning in Primary Schools: A 3-Year Longitudinal Study on Spatial Cognition Development
12:30 – 13:30	Auditorium **KEYNOTE LECTURE 9** **Gao: *Binding in working memory: cognitive and neural mechanism***	
13:30 – 14:30	**LUNCH BREAK**	
14:30 – 15:30	Auditorium **KEYNOTE LECTURE 10** **Matthen: *Object perception in a multimodal context***	
15:30 – 16:50	**SYMPOSIUM 5** (continued)	**TALK SESSION 10** ***Neurocognitive impairments***
15:30 – 15:50	*#61 - Shapero:* When Up is Down and Down is Up: Local Topography, Landmarks and Absolute Frames of Reference in Ancash Quechua	*#35 - Postma et al.:* Space, memory and the future: Studies in Korsakoff patients
15:50 – 16:10	*#108 - Bohnemeyer et al.:* Reference frames in Mesoamerica: Evidence of cultural evolution	*#89 - Saccani et al.:* Increased attentional load leads to spatial processing asymmetries in brain damaged patients but not in healthy adults
16:10 – 16:30	*#34 - Pharao Hansen:* Semantic content and informational values of Nahuatl toponyms: A Possible Role in Cultural Adaptation to landscape?	*#114 - Skilters et al.:* Impacts of neurodegenerative impairments on perceptual organization
16:30 – 16:50	*#27 - O'Meara & Castillo Tapia:* Generic landscape terms in Seri placenames and how well they correspond with the places being named	*#118 - Gigliotta et al.:* VMR-BTT: a virtual- and mixed-reality platform to assess spatial neglect
16:50 – 17:30	**TEA BREAK**	
17:30 – 18:30	**SYMPOSIUM 5** (continued)	**TALK SESSION 11** ***Language & culture***
17:30 – 17:50	General discussion	*#1 - Wang & Yang:* Language affect English and Mandarin speakers' space perception tendencies
17:50 – 18:10		*#54 - Gudde & Coventry:* Spatial Demonstratives and Perspective Taking in Japanese and English
18:10 – 18:30		*#130 - Zheng & Zheng:* Cognitive semantics and spatial metaphors of "Li": tracing longitudinal shifts in Chinese residential onomastics
From 20:30	**SOCIAL DINNER**	

Friday, September 13

	Session room 1	Session room 2
09:00 – 10:20	**SYMPOSIUM 6** ***Two-dimensional spatial mappings of conceptual knowledge in human brain and behaviour*** Convenors: *Zona & Viganó*	**TALK SESSION 12** ***Orientation, exploration, & navigation 2***
09:00 – 09:20	*#17 - Park:* Structural abstraction and behavioral flexibility	*#11 - Doerr et al.:* Sense of direction: What relationship does it have with injury-related behavior?
09:20 – 09:40	*#36 - Viganò:* Spontaneous eye movements reflect the representational geometries of conceptual spaces	*#49 - Meneghetti:* Linking Spatial Cognition and Environmental Psychology:Path Description Learning, Biophilic Landmarks and Emotions
09:40 – 10:00	*#21 - Zona et al.:* Behavioral signatures of the hexagonal mapping of conceptual spaces for number retrieval	*#88 - Gregorians et al.:* Moving through architectural spaces involves spatial and aesthetic processing
10:00 – 10:20	General discussion	*#135 - May et al.:* Gaze Patterns in Visual Search: Tracking Eye Movements in the Trail Making Test
10:20 – 11:00	**COFFEE BREAK**	
11:00 - 12:20	**SYMPOSIUM 7** ***Mind over space: how mental training and psychopathological conditions alter the peripersonal space*** Convenor: *Simione*	**TALK SESSION 13** ***Mental representation 2***
11:00 – 11:20	*#128 - Chiarella et al.:* Different effects of focused-attention and open-monitoring mindfulness meditation on peripersonal space	*#31 - Hishiya:* Dichotomic Characteristics of Horizontal Spatial Representation on Acute Deterioration Risk
11:20 – 11:40	*#129 - Pesci et al.:* Multisensory processes are selectively modulated by different interactions with the environment	*#41 - Simonet et al.:* Mental representation of space through 2D and 3D sketching: a scoping review protocol
11:40 – 12:00	*#124 - Ferroni et al.:* Early traumatic experiences alter peripersonal space in children	*#71 - Pasala & Mandava:* Mental representation as an intuitive geometric construct through a fusion of various strategies of visual perception
12:00 – 12:20	*#126 - Ferroni et al.:* Your space or mine: trait anxiety affects the peripersonal space plasticity in a social context.	*#83 - Karlyukova et al.:* Sensorimotor mapping of emotive semantics in bilinguals
12:30 – 13:30	Auditorium **KEYNOTE LECTURE 11** **Wagemans: *Segmentation and binding in perceptual organization and visual aesthetics***	
13:30 – 14:30	**LUNCH BREAK**	
14:30 - 16:50	**SYMPOSIUM 8** ***Spatiotemporal binding of mental representations across different spatial scales*** Convenors: *Smith, De Lillo, & Piccardi*	**TALK SESSION 14** ***Orientation, exploration, & navigation 3***
14:30 – 14:50	*#57 - Orun et al.:* *Target switching behaviour in small/large scale foraging: complexity, speed and the hard currency of travelling distance*	*#4 - Or & Maidenbaum:* Navigating virtual environments with sustained sensory clashes
14:50 – 15:10	*#42 - Smith & Salo:* Feature integration in foraging: Exploring the visual guidance of large-scale search behaviour	*#18 - Dacey et al.:* Determining human navigation behaviours in the wilderness for spatial modelling
15:10 – 15:30	*#72 - Kozhevnikov:* Individual differences in spatiotemporal binding of mental representations	*#93 - van der Ham et al.:* Assessment of navigation expertise and impairment: the Leiden Navigation Test and Wayfinding Questionnaire
15:30 – 15:50	*#44 - Palmiero et al.:* Different mental representations in human spatial navigation	*#95 - Dolins et al.:* Bonobo Spatial Exploration and Navigation in a Virtual Rainforest
15:50 – 16:10	*#55 - Ruotolo et al.:* The influence of Emotions on Spatial Cognition: from route learning to egocentric and allocentric reference systems.	*#99 - Fragueiro et al.:* Functional conjunctions between self-based and map-based components of spatial navigation and declarative memory
16:10 – 16:30	*#86 - Buckley et al.:* The spatial layout of doorways and environmental boundaries shape determine interference between object-location bindings	*#100 - Merhav & Fisher-Gewirtzman.:* Pathways' design can aid wayfinding by facilitating route navigational strategies
16:30 – 17:30	**THANKS & CLOSING TEA BREAK**	