KogWis 2016

SPACE FOR COGNITION

13th Biannual Conference of the German Cognitive Science Society

26 - 30 September 2016, Bremen, Germany

kogwis2016.spatial-cognition.de

Program and Information

Thomas Barkowsky

chair

Zoe Falomir Llansola, Holger Schultheis, Jasper van de Ven

local organizing team

BREMEN SPATIAL COGNITION CENTER

Gesellschaft für Kognitionswissenschaft ev

Universität Bremen

Program and Information

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Contents

Dear participant of KogWis 2016: Space for Cognition!

We would like to welcome you to the 13th meeting of the German Cognitive Science Society as well as to the city of Bremen. Bremen has a long history dating back to the eighth century as a lively area of commerce, culture, and science. It is world-famous for its world-heritage monuments, for its beer, as well as for never having been visited by four elderly animals.

The University of Bremen, only founded 45 years ago, has been awarded in 2012 as one of eleven Excellence Universities in the initiative of the German Federal Ministry of Education and Research and the German Research Foundation.

At this year's KogWis conference, although research of all subareas of cognitive science will be presented, the special motto is "Space for Cognition". For research in *spatial cognition*, the University of Bremen is one of the most prominent locations world-wide. For twelve years, Bremen has been running the transregional collaborative research center SFB/TR 8 Spatial Cognition funded by the German Research Foundation. The work of this center is being continued in the Bremen Spatial Cognition Center (BSCC) since 2015.

As the highlights of KogWis 2016 we invited five renowned keynote speakers that will address core topics of cognition from a variety of perspectives and disciplines. Jim Davies will elaborate on the difference between mental imagery and imagination from a computational modeling point of view. Francesca Pazzaglia will address the acquisition of spatial knowledge with a focus on the interaction of pieces of information from various perspectives and sources. Terry Regier will investigate how semantics is constraint across natural languages due to the cognitive task of communicating and its requirements. Thomas Metzinger will argue for consciousness as an unintentional, subpersonal process rather than some form of intentional mental action. And finally, Ruth Conroy Dalton will explain how cognition is related to architectural design with a focus on the question how architectural complexity affects people's experience of buildings.

As submissions to KogWis 2016 we received sixty extended abstracts that have been thoroughly reviewed by the members of the program committee. On the basis of the reviews we accepted 23 contributions as oral presentations, and 29 for poster presentation. The authors of the accepted contributions that are related to the topical focus of spatial cognition have been invited to submit an extended version of their work for publication in a conference post-proceedings Springer LNAI volume.

The overall program of KogWis 2016 also comprises a number of invited symposia addressing specific topics of cognitive science, several tutorials, a doctoral symposium, as well as the GK best paper talk and the presidential lecture. The scientific program is complemented by a welcome reception, the social dinner, and the GK Society Meeting.

We very much hope that you will enjoy KogWis 2016, that you will engage in inspiring chats with colleagues, and that you will have a wonderful time in Bremen.

Thomas Barkowsky
Zoe Falomir Llansola
Holger Schultheis
Jasper van de Ven

Conference Organization

Thomas Barkowsky (chair)
Zoe Falomir Llansola, Holger Schultheis, Jasper van de Ven (local organizing team)
Gracia Kranz (administration)
Alexander Mittelstorb (technical support)

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General Information

Conference Location

KogWis 2016 takes place on the University of Bremen campus in the building NW1 (campus plan 1C, bus/tram stop "Universität-Süd", tram 6, bus 21, 22, 28, 31, 630, 670).

Address: University of Bremen NW1, Otto-Hahn-Allee, 28359 Bremen.

Parking

There are several parking areas in the vicinity of NW1 building, both free of charge and at reasonable per-day fees.

Registration and conference badge

The conference registration desk will open on Monday, 16 September 12:30. All participants are kindly asked to wear their conference badge at all times during the conference.

Conference Office

In case of any questions please contact us via kogwis2016@cs.uni-bremen.de or by phone +49 – (0)152 33551011 (Gracia Kranz).

Wireless Internet

Wireless internet is available throughout the conference site via eduroam. If you do not already have an eduroam account please contact the registration desk/conference office for temporary access for the duration of the conference.

Receipt of conference fee payment

If you need a receipt about the payment of the conference fee please contact us via kogwis2016@cs.uni-bremen.de.

KogWis 2016: Program

Monday, 26 September 2016

14:00 Parallel Session I

S1: Formal and Cognitive Reasoning (H2)

Organizers: Christoph Beierle, Gabriele Kern-Isberner, Marco Ragni, Frieder Stolzenburg

14:00 Markus Knauff: *New frameworks of rationality*

14:40 Christian Freksa: *Affordance and constraints as complementary notions in problem solving*

15:20 Francois Bry: *Human computation: combining the computational power of machine with cognitive skills of humans*

S3: Cognition and Manual Action (H3)

Organizers: Dirk Koester and Christian Seegelke

Abdeldjallil Naceri, Alessandro Moscatelli, Robert Haschke, Marco Santello, Marc Ernst: *Digit position and force synergies during unconstrained grasping*

Anna Belardinelli, Martin Butz: *Anticipating object interaction with the eyes and with the hands: perceptual and planning aspects*

Rumeysa Gunduz, Thomas Schack, Dirk Koester: *The neurophysiological interaction between working memory and grasping movements*

Christian Seegelke, Iris Güldenpenning, Julian Dettling, Thomas Schack: *Distinct effects of visuomotor priming on action preparation and motor programming*

Marc Himmelbach, Mareike Gann: *Interactions of cortical networks for object recognition and object grasping*

16:00 Coffee Break

16:30 **Keynote Talk: Jim Davies: Imagination and Mental Imagery (H1)**

17:30 **Welcome Reception**

Tuesday, 27 September 2016

09:00 Parallel Session II

S4: Dynamics of Sketching and Sketch Understanding (DySket) (S1360)

Organizers: Ahmed M. H. Abdel-Fatah, Haythem O. Ismail, Kai-Uwe Kühnberger

Malumbo Chipofya: *Sketchmapia – A framework for recognition, interpretation and visualization of sketch maps, and integration of sketch maps and metric maps*

Stefan Schneider: *Mental object manipulation to generate sketches*

Oliver Kutz: *Image schemas, concept invention, and generalisation*

O1: Language (H2)

Session chair: Markus Knauff

Thomas Kluth, Michele Burigo, Holger Schultheis, and Pia Knoeferle: *The role of the center-of-mass in evaluating spatial language*

Evelyn C. Ferstl and Lena Dietsche: *"Fragen Sie Ihren Arzt oder Apotheker!" –How grammatical gender influences representations of discourse referents*

Kirsten Bergmann and Stefan Kopp: *Time pressure effects on semantic speech-gesture coordination*

O2: Place Recognition and Localization (H3)

Session chair: Christian Freksa

Marc Halfmann, Viktoria Prozmann, Nina Walker, and Hanspeter A. Mallot: *Wall distance as a cue in human place recognition*

Hanspeter A. Mallot and Stephan Lancier: *A maximum-likelihood approach to place recognition from distant landmarks*

Rul von Stülpnagel, Vincent Langenfeld, and Christoph Hölscher: *Self-localization accuracy and spatial ambiguity of humans and robots in a complex building*

11:00 Coffee Break

11:30 **Keynote Talk: Terry Regier: Semantic Typology and the Sapir-Whorf Hypothesis in Computational Perspective (H1)**

12:30 Lunch Break

14:00 Parallel Session III

S4: Dynamics of Sketching and Sketch Understanding (DySket) (S1360)

Organizers: Ahmed M. H. Abdel-Fatah, Haythem O. Ismail, Kai-Uwe Kühnberger

Kirsten Bergmann: *Social sketching – Depicting gestures in multimodal communication*

Zoe Falomir Llansola: *Image understanding using sketching and qualitative descriptors*

Kai-Uwe Kühnberger: *The role of concepts in sketch understanding*

O3: Categorization and Spatial Representation (H2)

Session chair: Tarek Besold

Alexander Lotz and Nele Russwinkel: *Modelling different strategies in mental rotation*

Christina Zeller and Ute Schmid: *Rule learning from incremental presentation of training examples: Reanalysis of a categorization experiment*

Johannes Lohmann and Martin V. Butz: *Multisensory conflict yields adaptation in peripersonal and extrapersonal space*

Cordula Vesper, Tiffany Morisseau, Günther Knoblich, and Dan Sperber: *Matching matchboxes: Co-actors create nonconventional communication systems for joint action*

16:00 Coffee Break

16:30 **Keynote Talk: Thomas Metzinger: Mental Autonomy and Mental Action (H1)**

17:30 **Poster Teasers (H1)**

18:00 **Poster Session**

Wednesday, 28 September 2016

09:00 Parallel Session IV

O4: Embodied Cognition (H2)

Session chair: Tobias Meilinger

Marc Halbrügge: *Rethinking the keystroke-level model from an embodied cognition perspective*

Sebastian Kahl and Stefan Kopp: *Communicative signaling and self-other distinction: Next steps for an embodied hierarchical model of dynamic social behavior and cognition*

Dirk Koester, Thomas Schack, and Iris Güldenpenning: *Motor expertise facilitates the cognitive evaluation of body postures: An ERP study*

Noshaba Cheema, Lex Fridman, Ruth Rosenholtz, and Christoph Zetzsche: *Optimum statistical representation obtained from an intermediate feature level of the visual hierarchy*

O5: Spatial Perception (H3)

Session chair: Evelyn Ferstl

Basil Wahn, Supriya Murali, and Peter König: *Auditory stimulus detection partially depends on visuospatial attentional resources*

Bettina E. Bläsing: *Recognition of self-performed, but visually unfamiliar dance-like actions from point-light displays*

11:00 Coffee Break

11:30 **Keynote Talk: Ruth Conroy Dalton: Architectural Design, Complexity, and Cognition (H1)**

12:30 Lunch Break

14:00 Parallel Session V

O6: Computational Modeling and Assistance (H2)

Session chair: Jasper van de Ven

Marc Halbrügge and Holger Schultheis: *Modeling kitchen knowledge with LTM^C*

Felix Putze, Elias Bordolo, and Tanja Schultz: *Model-driven interaction strategies of a dialog system for navigation and information*

O7: Predictive Processing (H3)

Session chair: Nele Rußwinkel

Wanja Wiese: *What are the contents of representations in predictive processing?*

Kinga Jęczmińska: *Complementarity between the global workspace theory and the sensorimotor theory*

15:00 **Doctoral Symposium (H1)**

Organizer: Zoe Falomir Llansola

Iris Sauerbrei: *3D-shape-perception studied exemplarily with tetrahedron and icosahedron as prototypes of the polarities sharp versus round*

Erik Andresen: *Representation of wayfinding and perception abilities in agent-based-models*

Christina Zeller: *Inductive learning of categories, between cognitive modeling and machine learning*

16:00 Coffee Break

16:30 **Doctoral Symposium (H1)**

Organizer: Zoe Falomir Llansola

Juan Purcalla Arrufi: *Modelling human navigation: Cognitive aspects of obstacle avoidance*

Martin Hillebrand: *Cognitive complexity of number sequence completion problems: Evidence for human heuristics*

Efrosini Charalambous: *Updating of spatial representations: Two pilot ERP experiments*

Laura Israel and Evelyn C. Ferstl: *The comprehension of verbal jokes: A visual-world study*

Ahmad Mahdeyan and Ebrahim SoltaniNasab: *Cognitive sciences strategies for futures studies (Foresight)*

18:00 **GK Society Meeting (H1)**

Thursday, 29 September 2016

09:00 Parallel Session VI

S2: Spatial Representation and Processing - What Information Do We Need? (H1)

Organizers: Tobias Meilinger, Ramona Grzeschik

Ramona Grzeschik, Ruth Conroy Dalton, Anthea Innes, and Jan Wiener: *Effects of ageing on landmark recognition*

Michele Burigo: *The influence of extra-linguistic information on spatial language*

Holger Schultheis: *Adjusting our view on perspective taking: scalable representation structures and reference frames*

Jascha Gruebel, Tyler Thrash, Victor Schinazi, and Christoph Hoelscher: *The decomposition of navigation behavior into simple tasks*

Chantal Horeis, Celia Foster, Katsumi Watanabe, Heinrich H. Bülthoff, and Tobias Meilinger: *The integration of room views*

Jakub Krukar and Angela Schwering: *What is Orientation?*

S5: Social Perception (H2)

Organizer: Tobias Schlicht

Shaun Gallagher: *Perceiving the embodied mind*

J. Suilin Lavelle: *Which psychological states can we see?*

Tobias Schlicht: *On the nature and function(s) of social perception*

T1: Detecting and Discouraging Non-Cooperative Behavior in Online Rating Tasks (S1360)

Instructors: Jana Häussler and Tom Juzek

11:00 Coffee Break

11:30 **Keynote Talk: Francesca Pazzaglia: Acquiring Spatial Knowledge from Different Sources and Perspectives: Abilities, Strategies, Representations (H1)**

12:30 Lunch Break

14:00 Parallel Session VII

S6: Mental Files in Cognitive Science: Core cognition, Concepts and Mindreading (H1)

Organizer: Albert Newen

Albert Newen: *Mental files and concepts*

Francois Recanati: *Mental files in a dynamic perspective*

Josef Perner: *Mental files theory of mind*

Joulia Smortchkova: *Core agency cognition: from object-files to agent-files*

T1: Detecting and Discouraging Non-Cooperative Behavior in Online Rating Tasks (S1360)

Instructors: Jana Häussler and Tom Juzek

T2: Kant and Cognitive Science (H2)

Instructor: Tobias Schlicht

16:00 Coffee Break

16:30 **Presidential Lecture (H1):** Kai Vogeley

17:00 **GK Best Paper Talk (H1):** Fabian Schrodt and Martin V. Butz: *Just imagine! Learning to emulate and infer actions with a stochastic generative architecture*

19:30 **Social Dinner** ("Kaffee Mühle", Am Wall 212, 28195 Bremen)

Friday, 30 September 2016

09:00 Parallel Session VIII

T3: Workshop on Creativity (S1360)

Instructor: Bipin Indurkhya

T4: Introduction to Cognitive Modeling with ACT-R (H1)

Instructors: Nele Rußwinkel and Sabine Prezenski

T5: Bayesian Data Analysis: Main Ideas, Practices, and Tools (H3)

Instructors: Michael Franke and Fabian Dablander

11:00 Coffee Break

11:30 Parallel Session IX

S7: PROSOCRATES: Problem Solving, Creativity and Spatial Reasoning in Cognitive Systems (S1360)

Organizers: Ana-Maria Olteteanu and Zoe Falomir

Anna Fedor, István Zachar, András Szilágyi, Michael Öllinger, Harold P. de Vladar, Eörs Szathmáry: *Insight and evolution*

Christian Freksa: *On the role of physical space for commonsense problem solving*

T4: Introduction to Cognitive Modeling with ACT-R (H1)

Instructors: Nele Rußwinkel and Sabine Prezenski

12:30 Lunch Break

14:00 Parallel Session X

S7: PROSOCRATES: Problem Solving, Creativity and Spatial Reasoning in Cognitive Systems (S1360)

Organizers: Ana-Maria Olteteanu and Zoe Falomir

Bipin Indurkhya: *Experience, understanding and creativity*

Ana-Maria Olteteanu: *Towards re-representation in cognitive systems*

Kai-Uwe Kühnberger: *Challenges and directions for making cognitive systems creative*

Zoe Falomir: *Qualitative reasoning models to help solving spatial ability tests*

T4: Introduction to Cognitive Modeling with ACT-R (H1)

Instructors: Nele Rußwinkel and Sabine Prezenski

T5: Bayesian Data Analysis: Main Ideas, Practices, and Tools (H3)

Instructors: Michael Franke and Fabian Dablander

16:00 Coffee Break

End of KogWis 2016

Keynote Speakers

Ruth Conroy Dalton is Professor of Building Usability and Visualisation at the University of Northumbria at Newcastle, situated in the North East of England. She is an alumnus of University College London. As a licensed architect, she has worked for Foster and Partners (London) and Sheppard Robson Corgan Architects (London); key projects on which she has worked include the Carré d'Art de Nîmes, in France, the Palaçio de Congresos in Valencia, Spain, and the Kings Cross International Terminal, London (unbuilt). She has taught at the Architectural Association, London, the Georgia Institute of Technology, Atlanta, USA and the Bartlett School of Architecture, UCL. Ruth Conroy Dalton's research interests are centred around the relationship between the spatial layout of buildings and environments and their effect on how people understand and interact in those spaces. She is an expert in space syntax analysis, architectural and spatial cognition and pedestrian movement / wayfinding. She is passionately interested in placing the user at the centre of architectural design.

Architectural Design, Complexity, and Cognition

In earlier work by Dalton (and collaborators), it was suggested that there are three distant ways in which cognition takes place in relation to architectural design: 1) the impact of architectural structure, function and form on human perception, cognition and behaviour; 2) the impact of cognitive factors on the design of architectural structures; 3) the means of interaction and communication between the architect and building-user perspectives. Architectural cognition embraces all of these three types. This talk will focus on architectural cognition and complexity and, in particular, will on the lay-person / building-user's perception of complex architectural environments. It can be argued that complexity in architectural design has two principal impacts on the building user: first in their aesthetic appraisal and second in their understanding of the building layout and subsequent wayfinding through a complex environment. This keynote will cover both of these aspects of architectural but will focus on/describe experiments on the latter.

Jim Davies is an associate professor in the Institute of Cognitive Science at Carleton University, where he has won several teaching awards. He has degrees in philosophy, computer science, and cognitive psychology. As director of the Science of Imagination Laboratory, he explores processes of imagination in humans and machines, and specializes in artificial intelligence, analogy, problem-solving, and the psychology of art, religion, and creativity. His work has shown how people use visual thinking to solve problems, and how they visualize imagined situations and worlds.

He is author of over 50 peer-reviewed publications in the fields of cognitive science, artificial intelligence, philosophy, and psychology. He is a regular contributor to Nautilus magazine, and wrote the popular science book *Riveted: The Science of Why Jokes Make us Laugh, Movies Make us Cry, and Religion Makes us Feel One with the Universe*. He has been asked to speak at three TEDx events, and his work was featured on the Brain Games television program.

www.jimdavies.org.

Imagination and Mental Imagery

What is imagination, and how is it different from mental imagery? In this talk, Jim Davies will discuss what science shows about how imagination works, with a focus on his computational modeling of imagination and his neural model of visual mental imagery.

Thomas Metzinger is a fellow at the *Gutenberg Research College* (2014-2019). As a philosopher he has been working at the interface of philosophy of mind and cognitive science for many years. Moreover, he is interested in ethical, anthropological, and sociocultural implications of scientific progress in the neurosciences. Prof. Metzinger is the director of the theoretical philosophy group and the neuroethics section of the philosophy department of the University of Mainz, as well as the director of the MIND group at the *Frankfurt Institute for Advanced Study* (open-mind.net). From 2005 to 2007 he was president of the German Cognitive Science Society, and from 2009 to 2011 he was president of the *Association for the Scientific Study of Consciousness*.

Mental Autonomy and Mental Action

I will have two central goals in the first part of this talk, which explores the relevance of latest research on mind-wandering for theories of consciousness. First, conceptually, and in opposition to what many philosophers following Descartes and Kant traditionally have liked to believe, I will argue for the claim that conscious thought actually is a *subpersonal* process, only rarely a form of mental action, but rather an unintentional form of mental behavior, and demonstrably for more than two thirds of our conscious life-time. The paradigmatic, standard form of conscious thought is non-agentive, it lacks veto-control, and involves an unnoticed loss of epistemic agency and goal-directed causal self-determination on the level of mental content. Second, I present an empirical hy-

pothesis: There will be a detectable *self-representational blink* (SRB), a small time window I which we are blind to ourselves, namely, when shifting from one phenomenal self-model or "unit of identification" (UI) to the next. Alluding to the well-studied phenomenon of the attentional blink (Raymond, Shapiro, and Arnell, 1992, Shapiro, Raymond, and Arnell, 1997), the notion of a "self-representational blink" refers to the fact that we are typically not able to consciously experience the actual moment of *transition* from mindful, present-oriented self-awareness to the identification with the "protagonist" of a daydream, the content of the self-model in autobiographical planning, etc. Phenomenologically, the SRB is characterized by a brief loss of self-awareness, followed by an involuntary shift in the phenomenal UI; functionally, we can describe it as a failure of attentional and/or cognitive self-control. The empirical prediction is that subjects should be blind to self-related stimuli during the SRB, and my main hope is that the audience can help in developing novel experimental paradigms to test this hypothesis.

If time allows, I will also take a closer look at the concept of "mental action" in the second part. Can we conceptually accommodate mental actions under a predictive processing approach? My main positive claim will be that mental action is the predictive control of effective connectivity, where what is predicted is the epistemic value of states integrated into the phenomenal self-model under counterfactual outcomes.

Metzinger, T. (2013). The Myth of Cognitive Agency: Subpersonal thinking as a cyclically recurring loss of mental autonomy. *Frontiers in Psychology*, **4**, 931.

Metzinger; T. (2015). M-Autonomy. *Journal of Consciousness Studies*, **22 (**11-12), 270-302. Special Issue edited by Mihretu P. Guta and Sophie Gibb: *Insights into the First-Person Perspective and the Self - An Interdisciplinary Approach.*

Francesca Pazzaglia is professor of Psychology and co-director of the Memory & Learning Lab at the Department of General Psychology of the University of Padua. She investigates individual differences in spatial skills, spatial learning and behavior, working memory in spatial orientation and spatial text processing. In particular, she is interested in exploring how spatial ability, spatial memory, and strategies in spatial representation interact in affecting performance in a wide range of spatial tasks, in young adults, aged people, and special populations (children with nonverbal learning disabilities and MCI individuals).

Acquiring spatial knowledge from different sources and perspectives: abilities, strategies, representations

The ability to acquire spatial knowledge is very important in everyday life, and it has been very important to the survival of our own and other species. We acquire spatial knowledge starting from a variety of sensory inputs (e.g. vision, vestibular sense, kinesthesis, motor afference) and relative encoding processes, which lead to the construction of an internal representation of the environment on which we rely to perform

various spatial tasks, such as retracing a route, estimating distances and directions, or drawing a map (Wolbers & Hegarty, 2010).

An environment can be experienced (and described) from different perspectives (route or survey perspectives; Taylor & Tversky, 1992; Pazzaglia et al., 2012) and in different ways, by moving around in it, inspecting it from above, looking at a map, or listening to a verbal description. Learning experience and perspective can influence the resulting cognitive map and, as a consequence, the performance of spatial tasks (e.g. Thorndyke & Hayes-Roth, 1982). So can a number of other individual factors, including spatial abilities, visuospatial working memory (VSWM), sense of direction (SOD), and spatial representation preferences. In my talk I first introduce concepts such as SOD and spatial strategies, and then go on to describe a number of instruments widely used to assess these variables. Then I review the main outcomes of several studies based on the use of these instruments. The goal is to shed light on how interactions among these variables affect performance in spatial tasks. I also examine the role of these factors in conjunction with that of spatial ability and VSWM in determining individual differences in the performance of wayfinding tasks, map learning, and spatial text processing.

Terry Regier received his Ph.D. in Computer Science from UC Berkeley in 1992. He subsequently taught at the University of Chicago, in Psychology, before returning in 2009 to Berkeley, where he is now professor of Linguistics and Cognitive Science, and director of the Cognitive Science Program. His research explores the relation of language and cognition using computational methods.

Semantic typology and the Sapir-Whorf hypothesis in computational perspective

Why do languages have the semantic categories they do, and what do those categories reveal about cognition? Word meanings vary widely across languages, but this variation is constrained. I will argue that this pattern reflects a range of language-specific solutions to a universal functional challenge: that of communicating precisely while using minimal cognitive resources. I will present a general computational framework that instantiates this idea, and will show how that framework accounts for cross-language variation in several semantic domains. I will then address the Sapir-Whorf hypothesis - the claim that such language-specific categories in turn shape cognition. I will argue that viewing this hypothesis through the lens of probabilistic inference has the potential to resolve two sources of controversy: the challenge this hypothesis apparently poses to the widespread assumption of a universal groundwork for cognition, and the fact that some findings supporting the hypothesis do not always replicate reliably.

Symposia

Symposium S1: Formal and Cognitive Reasoning (Monday, 14:00, H2)

Organizers: Christoph Beierle, Gabriele Kern-Isberner, Marco Ragni, Frieder Stolzenburg

Reasoning about (spatial) information is usually pervaded by uncertainty and subject to change. This is not unique to human reasoning, but it also applies to cognitive systems. Thus there is an increasing demand both from psychology and computer science for non-classical reasoning approaches. So far, many advanced and sophisticated approaches of knowledge representation and reasoning have not yet been made accessible for cognitive approaches, and insights gained from cognition are only rarely reflected in formal approaches. Generally, people employ both inductive and deductive reasoning to arrive at beliefs; but the same argument that is inductively strong or powerful may be deductively invalid. Therefore, a wide range of reasoning mechanisms has to be considered. The field of knowledge representation and reasoning offers a rich palette of methods for uncertain reasoning both to describe human reasoning and to model AI approaches. Beyond computational aspects, these methods aim to reflect the rich variety of human reasoning in uncertain and dynamic environments. The aim of this symposium is to address recent challenges and to present novel approaches to uncertain reasoning in its broad sense, including new insights from cognitive psychology, neuroscience, cognitive computing, and human computation, combining psychological models, uncertain (spatial) reasoning, and computer science. Reflecting this focus, the symposium "Formal and Cognitive Reasoning" at KogWis 2016 is organized jointly by the GI special interest groups Wissensrepräsentation und Schließen and Kognition.

Speakers: Markus Knauff, Christian Freksa, Francois Bry

Symposium S2: Spatial Representation and Processing - What Information Do We Need? (Thursday, 09:00, H1)

Organizers: Tobias Meilinger, Ramona Grzeschik

Space is a multi-faceted dimension and the awareness and the comprehension of spatial information is critical for the interaction with our environment. Different approaches have been performed to gain insight into the underlying mechanisms of spatial information process. This symposium will bring together a selection of experimental and theoretical approaches originating from Cognitive and Computer Science, Psychology, Linguistics, Geography, and Architecture to investigate the representation and processing of spatial information.

In this symposium, we will tackle the question how saliency and uniqueness of landmarks influence route learning, particularly in elderly wayfinders, and will discuss the relation between perceptual information, spatial representations and how they are integrated into spatial language. A computational model will be presented that explains perspective taking in terms of a joint influence of interference on the cognitive and the motor level. Further, we will look into the prediction of navigation ability which apparently cannot be reduced to a core processing capability. We will address the questions about the minimal room representations formed in different learning situations and how this representational selection does balance costs from integration and retrieval. Finally, a prototypical wayfinding aid will be presented which was developed with the focus on exploring and developing new means of providing navigational instructions.

Bringing together researchers and approaches from different areas will afford different perspectives on the question of which information is essential when comprehending and acting in a spatial context, and to what extend information requirements overlap and differ for different spatial tasks.

Speakers: Ramona Grzeschik, Michele Burigo, Holger Schultheis, Christoph Hölscher, Tobias Meilinger, Jakub Krukar

Symposium S3: Cognition and Manual Action (Monday, 14:00, H3)

Organizers: Dirk Koester and Christian Seegelke

The human hand is a marvelous complex and flexible tool and people have always been intrigued by its multifunctional utilization. Many of our daily activities require (intentional) physical interactions with one or both hands and possibly with multiple objects. Consequently, the domain of grasping and object manipulation provides a fascinating field of research for cognitive neuroscience, because both sensorimotor and cognitive functions are involved. In this symposium, we will bring together scientists from different disciplines who will present their latest research from the frontiers of the interaction of sensorimotor and cognitive processes in the context of grasping, using a variety of diverse approaches and methodologies. Specifically, data will be presented on how the central nervous system masters the redundancy in the degrees of freedom for the upper limb by means of kinematic and force synergies during unconstrained grasping. In addition, examination of coordinative patterns between gaze and hand movements using eye tracking provides insights into the role of eye-movements in the planning of sequential actions. Furthermore, the role of working memory and object representations in the planning and control of reach-to-grasp actions will be discussed using behavioral (RT and kinematics), neurophysiological (EEG), and neuroimaging (fMRI) methods. This symposium is an attempt to extend our understanding of grasping and the interactions with other cognitive domains and to contribute to the further development of latest neurocognitive theories of movements and cognition.

Speakers: Abdeldjallil Naceri, Alessandro Moscatelli, Robert Haschke, Marco Santello, Marc Ernst; Anna Belardinelli, Martin Butz; Rumeysa Gunduz, Thomas Schack, Dirk Koester; Christian Seegelke, Iris Güldenpenning, Julian Dettling, Thomas Schack; Marc Himmelbach, Mareike Gann

Symposium S4: Dynamics of Sketching and Sketch Understanding (DySket) (Tuesday, 09:00 and 14:00, S1360)

Organizers: Ahmed M. H. Abdel-Fatah, Haythem O. Ismail, Kai-Uwe Kühnberger

Due to the success of touch interfaces as mainstream tools, cognitively inspired AI research faces the challenge to develop human-computer interfaces that employ the capacity of sketch understanding as a basis for enhanced communication with machines. Sketches outperform languages in more easily drawing on one's well developed intuittions, especially when spatial relations are of a central concern. They are used in various ways to communicate ideas, to support design processes by externalizing ideas, to understand complex relations or processes, and even to support memorization. However, the recognition or retrieval of sketches by computational tools is generally difficult, and requires long computations or simulation of complex mechanisms, such as spatial reasoning, analogy making, abstraction, learning, etc., which are not as intuitive as the humans' processing for sketch production or recognition. Moreover, while clearly some

pictures are sketches and some are not, it is not equally clear whether some sketches are pictures and some are not. A sequence of gestures, for example, may be accepted as a sketch, while clearly not a picture. And, if a picture is worth a thousand words, does this hold also for sketches?

The DySket symposium aims at more deeply discussing these topics on a scientific, interdisciplinary basis. How do humans conceptualize ideas via sketching? What are the main underlying cognitive mechanisms responsible for recognition? Which parts of a sketch play more significant roles than others? How to build AI models guided by the way humans operate on sketches to perform similar tasks?

Speakers: Malumbo Chipofya, Stefan Schneider, Oliver Kutz, Kirsten Bergmann, Zoe Falomir Llansola, Kai-Uwe Kühnberger

Symposium S5: Social Perception (Thursday, 09:00, H2)

Organizer: Tobias Schlicht

In the debate about social understanding, the possibility of directly perceiving the mental states of others has been proposed as an alternative to cognitively more sophisticated strategies as formulated by theory-theory and simulation-theory. What is at stake in this debate is whether the psychological processes underlying social understanding have to be conceived of as perceptual or cognitive or inferential. In this symposium, various questions concerning the possibility of direct social perception of states like emotions and intentions will be addressed. Shaun Gallagher (University of Memphis), one of the chief proponents of social perception will clarify how perception and other minds should be conceived for social perception to be possible and defend this proposal in the light of recent objections. J. Suilin Lavelle (University of Edinburgh) investigates whether proponents of a theory-based approach are committed to the claim that mental states are unobservable. She defends a theory-based approach by exploring what kinds of psychological state can be considered observable if one is to take this approach, focusing particularly on whether non-folk psychological states can be perceived. Finally, Tobias Schlicht (Ruhr-Universität Bochum) then discusses social perception against the background of the debate between an enactive perspective on perception and cognition and a more traditional representationalist perspective on these capacities. Based on a notion of perception in terms of predictive coding, the focus is on the structure and content of the mental representations underlying social perception and possible functions for social perception.

Speakers: Shaun Gallagher, J. Suilin Lavelle, Tobias Schlicht

Symposium S6: Mental Files in Cognitive Science: Core cognition, Concepts and Mindreading (Thursday, 14:00, H1)

Organizer: Albert Newen

Although the idea of mental files as a tool in mental representations of the human mind is not a new one in Cognitive Science, there are remarkable fruitful new usages of mental files to explain several phenomena which were waiting quite long for an adequate treatment. The symposium aims to present some of the key phenomena and argue that the framework of mental files could help to make progress in understanding them. The areas of application to prove the fruitfulness of the perspective of using mental files include: 1. the development of concepts in ontogeny, 2. modes of presentation and co-

reference, 3. the development of the ability to pass the explicit false belief task and 4. the development of the core agency system (according to Susan Carey and E. Spelke).

Speakers: Albert Newen, Francois Recanati, Josef Perner, Joulia Smortchkova

Symposium S7: PROSOCRATES: Problem Solving, Creativity and Spatial Reasoning in Cognitive Systems (Friday, 11:30 and 14:00, S1360)

Organizers: Ana-Maria Olteteanu and Zoe Falomir

Problem-solving, computational creativity, human creative cognition and spatial cognition are topics often treated separately, despite their major potential for synergies. Problem-solving has been approached in different ways by artificial intelligence and the study of human cognition. For example, humans face ill-structured problem-solving very often, however processes to tackle such problems, like the use of re-representation, are rarely implemented in cognitive agents.

Computational creativity focuses on building creative artificial systems capable of creative feats similar to those achieved by humans and modes of evaluation that can be used to assess such systems. However, the processes and representations in the field are rarely compared to those used by humans.

Human creative cognition investigates the way humans solve a multiplicity of creative tasks, from the simple (coming up with an alternative use for an object) to the complex (solving insight problems), asking questions about process. However, no tools and frameworks exist for implementing computational approaches to test hypotheses in a unified manner.

Finally, spatial cognition is known to contribute to the development of abstract thought, and have a role in insightful problem solving. However, the role of spatial cognition is rarely studied in conjunction with creativity, and with a cognitive systems perspective, aimed at implementing working models.

The topical focus of this symposium is to bring these disciplines together, by bringing in dialogue specialists from each of the fields, as to produce new theoretical tools, approaches and methodologies for the study of problem-solving, creativity and spatial reasoning in cognitive systems.

Speakers: Bipin Indurkhya, Kai-Uwe Kühnberger, Christian Freksa, Anna Fedor, Ana-Maria Olteteanu, Zoe Falomir

Tutorials

Tutorial T1: Detecting and Discouraging Non-Cooperative Behavior in Online Rating Tasks (Thursday, 09:00 and 14:00, S1360)

Instructors: ***Jana Häussler, Tom Juzek***

More and more researchers use crowdsourced rating tasks for data collection. In a rating task, participants are asked to evaluate some stimulus with respect to a given scale (e.g. they evaluate the similarity of two stimuli on a 7-point scale). However, previous studies demonstrated that crowdsourcing is quite susceptible to non-cooperative behavior (NCB), i.e. some participants are not complying with the task. Critically, NCB has a significant impact on the quality of the results that goes beyond mere noise.

This workshop presents response-time based strategies for detecting and discouraging NCB. In Session 1, we motivate their relevance, outline their functioning, and walk through the statistical part. We will show why a median-based criterion is more effective than a mean-based or absolute one and we will justify a response-time-based warning mechanism that discourages NCB effectively. Common platforms used for crowdsourced ratings tasks, e.g., Amazon Mechanical Turk or Prolific Academic, do not offer response times, let alone real-time access to them. Session 2 therefore provides the hands-on knowledge necessary for setting up an external rating website that allows the researcher to collect response times, to fully randomise items (with a Fisher-Yates shuffle), to implement the on-line/real-time warning mechanism, to intersperse booby trap items, and to collect personal data from the participants (using JavaScript and PHP; the code will be provided and explained, no prior technical knowledge is required).

Tutorial T2: Kant and Cognitive Science (Thursday, 14:00, H2)

Instructor: Tobias Schlicht

Theoretical positions from historical figures in philosophy are not only interesting in their own right but can sometimes be especially helpful in teaching us systematic ways of inquiry that are ignored or simply unknown in contemporary debates. It has been claimed that many of Kant's ideas make him the intellectual godfather of cognitive science (e.g. his distinction of percepts and concepts, his method of transcendental argument). In several recent publications, authors have suggested that various claims from Kant's tentative Philosophy of Mind not only have counterparts in the contemporary cognitive science of the mind but can guide cognitive science in its quest to discover the function and nature of consciousness, perception and other phenomena. This tutorial has two purposes: First, to (a) outline central claims of Kant's philosophy of Mind. This is no easy task since Kant has not fully developed a full-fledged theory of consciousness or mental phenomena; rather, everything he has to say about the structure and function of mental phenomena is in the service of his epistemological project of developing a theory of knowledge. The second purpose is to (b) situate Kant's claims in contemporary debates on consciousness, (c) to evaluate which of his claims are still of use for a thoroughly naturalist approach to the mind and, more specifically (d) to evaluate whether recent claims that recent developments in cognitive neuroscience suggest a "Kantian brain" are justified.

Tutorial T3: Workshop on Creativity (Friday, 09:00, S1360)

Instructor: Bipin Indurkhya

Human creativity has always fascinated psychologists and cognitive scientists. In the last fifty years or so, many cognitive aspects of creativity have been studied, and based on them many techniques for stimulating creativity have been developed. In this workshop, you will participate in a creativity-stimulating exercise that is based on one such technique. There are no prerequisites for participating, except to bring a fresh and open mind. This workshop is related to my talk in the KogWis 2016 symposium *PROSOCRATES: Problem Solving, Creativity and Spatial Reasoning in Cognitive Systems*.

Tutorial T4: Introduction to Cognitive Modeling with ACT-R (Friday; 09:00, 11:30, and 14:00; H1)

Instructors: Nele Rußwinkel, Sabine Prezenski, Marc Halbrügge, Stefan Lindner

ACT-R is the implementation of a unified theory of human cognition. It has a very active and diverse community that uses the architecture to model laboratory tasks as well as applied scenarios. The structure of ACT-R is oriented on the organization of the brain. This cognitive architectures states to be hybrid since it holds symbolic and subsymbolic components. The aim of working on cognitive models with a cognitive architecture is to understand how bottlenecks and errors occur in human behaviour occur.

In this tutorial the cognitive architecture ACT-R is introduced (J. R. Anderson, 2007: How can the human mind occur in the physical universe? New York: Oxford University Press). The focus of the tutorial is on the symbolic parts. In the beginning a short overview about recent work and ACT-R's benefit for applied cognitive science is given. Then a short introduction of the background, structure and scope of ACT-R is provided. Two hands-on examples of how to write ACT-R models are the core part of the tutorial. The first short example introduces important mechanisms of ACT-R (productions and chunks). This is followed by an in-depth introduction on mechanisms such as visual and manual processing. For the second example, the participants work on their own model version of a letter-selection task. Assistance and advice will be given during the exercises. Different solutions for the second example will be discussed. In the end information on further mechanisms of ACT-R such as subsymbolic components for learning processes are given.

No prior experience or programming knowledge is required. Please bring a laptop and preferably download the ACT-R software (stand alone version) prior to the event (http://act-r.psy.cmu.edu/software/).

Tutorial T5: Bayesian Data Analysis: Main Ideas, Practices, and Tools (Friday, 09:00 and 14:00, H3)

Instructors: Michael Franke, Fabian Dablander

Bayesian approaches to statistical inference are often portrayed as the new cool kid in town and heralded as superior to classical techniques. Naturally, the hype is also perceived critically. This course is meant to critically introduce the Bayesian approach in a nutshell. Participants who are as of yet unfamiliar with it will receive enough information to form an opinion and to know where to obtain more information that suits their needs. Those who are familiar with the main ideas can benefit from a concise rundown

of the most important recent developments. In particular, this course will do two things: (i) on the conceptual level, we provide an overview of the main ideas, advantages, and challenges of Bayesian data analysis, in direct comparison to classical approaches; (ii) on a practical level, we give an executive summary of some of the most recent and convenient tools for hands-on Bayesian data analysis.

Sponsors of KogWis 2016

Poster Session

The poster session will be held on Tuesday 27 September, 18:00-20:00. Poster boards and pins will be made available before the afternoon coffee break. Please put up your poster during the coffee break.

Every poster presenter is asked to give a very brief (max. 1 minute) oral teaser presentation in the 17:30 session (without visual media).

Benjamin Angerer, Cornell Schreiber, and Stefan Schneider: *Representational dynamics of problem solving in imagery: An exploratory case study*

Pamela Baess and Christina Bermeitinger: *Twin compatibilities: Studying spatial cognition with social Simon stimuli*

Matthias-Philipp Baumann, Wiebke Schick, and Hanspeter A. Mallot: *The impact of sleep on navigation and consolidation of survey knowledge*

Lasse T. Bergmann, Silja Timm, Max Wächter, Anke Dittmer, Felix Blind, Carmen Meixner, Larissa Schlicht, Anja Faulhaber, Juhee Jang, Aalia Nosheen, Simeon Kraev, Max Räuker, Leon Sütfeld, Achim Stephan, Peter König, and Gordon Pipa: *Moral decision making in autonomous vehicles*

Martin G. Bleichner, Bojana Mirkovic, and Stefan Debener: *Decoding spatial auditory attention using ear EEG*

Artur Czeszumski, Ernesto Andrés López Montecinos, Chiara Carrera, Anette Aumeistere, Ann Xavier, Basil Wahn, and Peter König: *Learned knowledge about the co-actor's behavior influences performance in a joint visuomotor task*

Philipp Dehmel, Kerstin Jost, Aquiles Luna-Rodriguez, Mike Wendt, and Thomas Jacobsen: *Quick and sustained inhibition of distractor elicited response activation in task switching*

Hanna Drimalla and Isabel Dziobek: *The role of facial mimicry in cognitive and emotional empathy and effects of autistic traits*

Zoe Falomir and Eric Oliver: *Towards improving users' 3D spatial skills using a qualitative 3D descriptor and a computer game*

Mareike Gann and Marc Himmelbach: *The cortical network of usability evaluations for unknown tools*

Tatiana Goregliad Fjaellingsdal, Esther Ruigendijk, Stefan Scherbaum, and Martin G. Bleichner: *Neural correlates of semantic expectation in a conversation – A wireless EEG study of the N400 effect*

Tobias Grage, Simon Frisch, and Stefan Scherbaum: *The interaction dynamics of meta-control parameters and congruency proportion in spatial set shifting*

Karoline Greger, Rebecca Albrecht, and Rul von Stülpnagel: *Landmark preference during route encoding and retrieval*

Tobias Jakubowitz, André Kowollik, and Ute Schmid: *The impact of a humanoid robot's action-selection strategy on humans' perceived naturalness of interaction – A user study with NAO playing rock-paper-scissors*

Marjan Daneshvar Kashkooli: *Semantics of Persian spatial term ǰelo based on principled polysemy model*

Pritty Patel-Grosz, Gerhard Jaeger, Matthias Holweger, and Nadina Kiss: *Challenging the distinction between presupposition holes and plugs* (presented by Natasha Korotkova)

Johanna Renker and Gerhard Rinkenauer: *Learning to cope with uncertainty during the acquisition of mental models*

Stefan Scherbaum, Tobias Grage, Moritz Walser, Katrin Hummel, and Maja Dshemuchadse: *Dissociating components of cognitive flexibility in semantic space: Continuous measures, dynamic modeling and clinical assessment*

Wiebke Schick, Marc Halfmann, Gregor Hardiess, and Hanspeter A. Mallot: *Language cues in the formation of hierarchical representations of space*

Laura Schmitz, Cordula Vesper, Natalie Sebanz, and Günther Knoblich: *Co-representation of others' spatial task constraints in joint action*

Tanja Schultz, Felix Putze, Timo Schulze, Ralf Mikut, Wolfgang Doneit, Andreas Kruse, Anamaria Depner, Ingo Franz, Marc Aurel Engels, Philipp Gaerte, Dietmar Bothe, Christof Ziegler, Irene Maucher, Michael Ricken, Todor Dimitrov, Joachim Herzig, Keni Bernardin, Tobias Gehrig, Jana Lohse, Marion Adam, Monika Fischer, Massimo Volpe, and Clarissa Simon: *I-CARE: Individual activation of people with dementia*

Diana Schwenke, Maja Dhesmuchade, Cordula Vesper, Martin G. Bleichner, Stefan Scherbaum: *Let's decide together! Joint delay decision-making improves delay discounting*

Pulkit Singhal, Aditya Agarwala, and Priyanka Srivastava: *Do pitch and space share common code?*

Michael Sprengel, Markus Hofmann, Mike Wendt, Aquiles Luna-Rodriguez, Sascha Tamm, Thomas Jacobsen, and Arthur M. Jacobs: *Recent response conflict modulates early distractor processing*

Anna Katharina Trapp and Manfred Thüring: *Emotional effects on time estimates during intervals up to 5s*

Rul von Stülpnagel and Christoph Hölscher: *Predicting patterns in navigator-driven placement of landmarks for future wayfinding with Space Syntax*

Additional Events

Welcome Reception

The welcome reception takes place in the foyer of NW1 building on Monday afternoon after the first keynote lecture. Drinks and snacks will be offered for your convenience.

GK Society Meeting

The regular meeting of the German Cognitive Science Society will be held on Wednesday at 18:00 in room H1.

Agenda

1. Begrüßung / Prüfung der Beschlussfähigkeit / Beschlussfassung über die Tagesordnung
2. Bericht des Vorstands und Berichte aus der Kommission
   - 2.1 Nachwuchsförderung (Stipendien IK und KogWis, Preise)
   - 2.2 Zeitschrift Cognitive Processing, Publikationskomitee, LiaisonEditor
   - 2.3 Web-Aufritt und Rundschreiben an die Mitglieder
   - 2.4 Organisatorisches und Finanzen (Bericht der Schatzmeisterin, inkl. Mitgliederentwicklung)
3. Bericht der Kassenprüfer
4. Entlastung des Vorstands
5. Vorstandswahl
6. Nachwahlen Beirat
7. Wahl der Kassenprüfer 2016
8. Vorstellung nächster Tagungsort & Termin der nächsten Fachtagung 2018
9. Sonstiges

Social Dinner

The social dinner will be held on Thursday from 19:30 in the beautiful windmill "Kaffee Mühle" close to the city center of Bremen. The dinner will be served as a buffet with free drinks included. Please bring your voucher if you booked the social dinner in the online conference registration process. Vouchers also are available at the conference registration desk.

Address:
Am Wall 212, 28195 Bremen; bus/tram stop "Herdentor", tram 4, 6, 8, bus 24, 25


Avenue
elements pure
Hotel Bremen
Bürgermeister-Smidt-Straße
Contrescarpe
Contrescarpe
Hillmannstraße
Bremen Am Wall
Am Wall
Kaffeemühle (Mühle
Am Wall) - Restaurant...
Internationale Küche in...
Birkenstraße
Am Wall
Bremen Herdentor
Bremen Herdentor
Spitzenkiel
Ansgaritorswallstraße
Wegesende
Am Wall
Am Wall
Herdentorswallstraße
Am Wall
Herdentor
ALEX Bremen
Hanseatenhof

Lunch Break Suggestions

NW1 – Mensa (campus plan 1C)
Small canteen directly at the conference site. Small selection of lunch specials.

The Fizz to go (campus plan 1C)
Small store with café close to the conference site. Day-to-day lunch specials.

Cafeteria GW2 (campus plan 2C)
Canteen with a friendly atmosphere and large wooden furniture.

Café Unique (campus plan 2C)
Restaurant offering lunch specials at reasonable prices.

Mensa (campus plan 2B)
The largest canteen with a large variety of dishes and a nice salad bar.

Café Central (campus plan 2B)
Canteen offering small dishes, snacks, coffee, sandwiches etc.

Unikum (campus plan 2C)
Quite small and cosy restaurant offering lunch specials. Not suitable for larger groups.

Restaurant Campus (campus plan 1A): restaurant in the ATLANTIC Hotel Universum.
Variety of lunch specials. A little bit more expensive.

BioBiss (campus plan 1B)
Canteen not far from the conference site.


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Richtung: HH, H, OS
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Am Fallturm
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Linzer Str.
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KITA Technol. park
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DFKI/RH 5 DLR
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WH7
WH5
WING
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KogWis 2016: Space for Cognition - Program Overview

	Mon 26 Sept	Tue 27 Sept	Wed 28 Sept	Thu 29 Sept	Fri 30 Sept
09:00		Parallel Session II S4: Dynamics of sketching... (S1360) O1: Language (H2) O2: Place recognition & loc... (H3)	Parallel Session IV O4: Embodied cognition (H2) O5: Spatial perception (H3)	Parallel Session VI S2: Spatial representation... (H1) S5: Social perception (H2) T1: Detecting non-cooper... (S1360)	Parallel Session VIII T3: Workshop on creativity (S1360) T4: Introduction to ACT-R (H1) T5: Bayesian data analysis (H3)
11:00		Coffee Break	Coffee Break	Coffee Break	Coffee Break
11:30		Keynote Talk (H1): Terry Regier	Keynote Talk (H1): Ruth Conroy Dalton	Keynote Talk (H1): Francesca Pazzaglia	Parallel Session IX T4: Introduction to ACT-R (H1) S7: PROSOCRATES (S1360)
12:30	Registration	Lunch Break	Lunch Break	Lunch Break	Lunch Break
14:00	Parallel Session I S1: Formal & cognitive reasoning (H2) S3: Cognition & manual action (H3)	Parallel Session III S4: Dynamics of sketching... (S1360) O3: Categorization & spatial... (H2)	Parallel Session V O6: Computational modeling (H2) O7: Predictive processing (H3)	Parallel Session VII S6: Mental files in cogn. science (H1) T1: Detecting non-cooper... (S1360) T2: Kant and cognitive science (H2)	Parallel Session X S7: PROSOCRATES (S1360) T4: Introduction to ACT-R (H1) T5: Bayesian data analysis (H3)
15:00			Doctoral Symposium (H1)		
16:00	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
16:30	Keynote Talk (H1): Jim Davies	Keynote Talk (H1): Thomas Metzinger	Doctoral Symposium (H1)	Presidential Lecture (H1)	end of conference
17:00				Best Paper Talk (H1)	
17:30	Welcome Reception	Poster Teasers (H1)			
18:00		Poster Session	GK Society Meeting (H1)		
19:30				Social Dinner @ "Kaffee Mühle"	