

DIAGRAMS24 PROGRAM: OVERVIEW
VERSION SEPTEMBER 5, 2024

Start	End	Day 1: Friday, September 27, 2024		
08:30	09:00	Registration, Entrance		
09:00	10:30	Tutorial 1, room S1 Vincent Abbott: <i>Neural Circuit Diagrams: A Diagrammatic Introduction to Deep Learning Models</i>	Tutorial 2, room S2 Robert Harlander, Sven Yannick Klein and Magnus Schaaf: <i>FeynGame - Feynman diagrams made easy</i>	
10:30	11:00	Refreshment Break: Entrance		
11:00	12:30	Tutorial 3, room S1 Celeste Pedro and Terhi Marttila: <i>Digital Volvelles</i>	Tutorial 4, room S2 Viktor Blasjo: <i>Euclid's Elements: The board game</i>	Workshop: The Diagrammatic Turn in Quantum Physics, Senatssaal tba
12:30	14:00	Lunch: Entrance		
14:00	15:30	Tutorial 4, room S1 Peter Cheng, Grecia Garcia Garcia, Fiorenzo Colarusso, Mateja Jamnik and Daniel Raggi: <i>Cognitive Modelling of Interpretations of Diagrams and Notations</i>	Tutorial 5, room S2 Reetu Bhattacharjee: <i>Forgotten diagrams and their applications in gestures</i>	Workshop: The Diagrammatic Turn in Quantum Physics, Senatssaal tba
15:30	16:00	Refreshment Break: Entrance		
16:00	17:30	Tutorial 7, room S1 J.R. Osborn: <i>Diagrammatica: A Community-Driven Database for Collecting, Tagging, and Exhibiting Diagrams</i>	Tutorial 8, room S2 Jens Lemanski: <i>Diagrams in the Age of Kant</i>	Tutorial 9, Senatssaal Petrucio Viana and Marcia R. Cerioli: <i>Graph Logic ZF Set Theory</i>

Day 2: Saturday, September 28, 2024				
09:00	9:30	Registration, Entrance		
09:15	9:30	Welcoming Remarks, Aula		
9:30	10:30	Keynote 1, Aula Catarina Dutilh Novaes: A dialogical account of diagrams in mathematical proofs		
10:30	11:00	Refreshment Break Entrance		
11:00	12:30	Paper Session 1, room S1 Chair: Uta Pris <ul style="list-style-type: none"> Alessio Moretti: <i>The Geometry of 4-valued Contradiction: the Oppositional Quadri-Segment B.4.2</i> Lorenz Demey and Hans Smessaert: <i>Euler Diagrams, Aristotelian Diagrams and Syllogistics</i> 	Paper Session 2, room S2 Chair: Erica de Vries <ul style="list-style-type: none"> Johanna Schoenherr, Anselm R. Strohmaier and Stanislaw Schukajlow: <i>Meta-Analysis of Visualization Interventions in Mathematics Education</i> Peter Cheng and Timon Boehm: <i>Why Feynman Diagrams Are Worth 10,000</i> 	Workshop: Peirce's Philosophy of Notation, Senatssaal <ul style="list-style-type: none"> Amirouche Moktefi: <i>On the plurality of logical notations</i> Dave Beisecker: <i>Peirce, Hegel, and Diagrams of Pure Being and Nought</i>

		<ul style="list-style-type: none"> Atsushi Shimojima and Dave Barker-Plummer: <i>A Way Diagrams Explain: Analysis Based on Consequence Matching</i> 	<i>formulas: A Representational Epistemic Analysis</i> <ul style="list-style-type: none"> Johanna Schoenherr and Richard E. Mayer: <i>Anxiety Moderates the Effects of Drawing Support on Drawing Accuracy in Mathematical Modeling</i> 	<ul style="list-style-type: none"> Markus Pantsar: <i>Peirce's Philosophy of Notations and the Trade-offs in Numeral Symbol Systems</i>
12:30	14:00	Lunch Entrance		
14:00	15:15	Paper Session 3, <i>room S1</i> Chair: Hans Smessaert <ul style="list-style-type: none"> Sohail Hossain and Mihir Kumar Chakraborty: <i>Sentence Negation and Term Negation as Syntactic Operations in Diagram Logic</i> Can Baskent: <i>Playing Games with Diagrams: Truth Diagrams and Game Semantics</i> 	Paper Session 4, <i>room S2</i> Chair: Marco Schorlemmer <ul style="list-style-type: none"> Jens Lemanski and Reetu Bhattacharjee: <i>On the Expressivity of Byzantine Diagrams in Logic</i> Janne Holmén: <i>A history of diagrams – Turning points in the spatial representation of ideas and information</i> 	Workshop: Peirce's Philosophy of Notation, <i>Senatssaal</i> <ul style="list-style-type: none"> Minghui Ma, Ahti-Veikko Pietarinen: <i>Monadic Existential Graphs and their Notational Novelties</i> Jukka Nikulainen, Ahti-Veikko Pietarinen: <i>Ethics and Philosophy of Notation in the egpeirce LaTeX Package</i>
15:15	15:45	Refreshment Break Entrance		
15:45	17:30	Paper Session 5, <i>room S1</i> Room: Arnold Oostra <ul style="list-style-type: none"> Reetu Bhattacharjee and Mario Piazza: <i>Adapting Venn diagrams for Non-Monotonic Reasoning</i> Uta Priss and Dominik Dürschnabel: <i>Rectangular Euler Diagrams and Order Theory</i> Yuri Sato, Ayaka Suzuki and Koji Mineshima: <i>Building a large dataset of human-generated captions for science diagrams</i> 	Paper Session 6, <i>room S2</i> Chair: Atsushi Shimojima <ul style="list-style-type: none"> Yuri Engelhardt and Clive Richards: <i>12 questions, 19 visual encoding techniques, and 101 types of visualization – each described by a systematically generated sentence</i> Mary Elworth: <i>Multiple representations in mathematical practice: Cluster algebras as a case study</i> Guy Marshall: <i>Drawing Technology: Sketches of Isambard Kingdom Brunel</i> 	Workshop: Peirce's Philosophy of Notation, <i>Senatssaal</i> <ul style="list-style-type: none"> Frederik Stjernfelt: <i>A Note on an Invisible Notation</i> Javier Legris: <i>Note on the interpretation of the line of identity in the Beta Graphs</i> Francesco Bellucci: <i>Linearity Lost</i> Nathan Haydon, Ahti-Veikko Pietarinen: <i>Ethics of Notation, Existential Graphs, and Logical Analysis</i>

Day 3: Sunday, September 29, 2024		
09:30	10:30	Keynote 2, <i>Aula</i>

		Mateja Jamnik: How can we make trustworthy AI?
10:30	11:00	Refreshment Break <i>Entrance</i>
11:00	11:45	Poster Session Talks, <i>Aula</i> Chairs: Jens Lemanski and Mikkel Willum Johansen <ul style="list-style-type: none"> • Tullio Aebischer: <i>A diagram helping the mathematical problem solving procedure</i> • Fernando Soler Toscano and Marcos Bautista López Aznar: <i>An Innovative Approach to Diagrams Representation: The Marlo Diagrams Web Page</i> • Noah Greenstein: <i>On the Formal Cause of Diagrams: Mimesis & Phenomenology</i> • Koiti Hasida, Zilian Zhang, Zifan Yao, Vili Valtteri Karilas, Shitao Fang, Kuanghuan Tan, Kenichi Shibata and Yusuke Matsubara: <i>Collaborative Graph-Document Composition Is Easy and Enhances Critical-Thinking Skills without Extra Cost</i> • Claudia Anger and Lorenz Demey: <i>The Region Connection Calculus, Euler Diagrams and Aristotelian Diagrams</i> • Masahiro Morii, Takashi Ideno, Yuki Tamari, Kazuhisa Takemura and Mitsuhiro Okada: <i>An eye-tracking study on the effects of using highlighted multi-attribute tables: A preliminary report</i> • Wode Ni, Sam Estep, Hwei-Shin Harriman, Jiří Minarčík and Joshua Sunshine: <i>Codifying Visual Representations</i> • Joannes B. Campell and Michael A. Müller: <i>Between pro/con-lists and argument graphs: Finding the right level of complexity in argumentation representation</i> • Henri Prade and Gilles Richard: <i>Diagrammatic analogical reasoning</i>
11:45	13:30	Poster Session, <i>Entrance</i>
12:30	13:30	DIAGRAMS assembly, All welcome, <i>room S1</i>
19:00	22:00	Conference Dinner <i>Schlossgarten</i>

Day 4: Monday, September 30, 2024				
9:00	10:30	Paper Session 1, <i>room S1</i> Chair: Dave Beisecker <ul style="list-style-type: none"> • Bryan Pickel and Brian Rabern: <i>A Compositional Semantics for Venn diagrams</i> • Arnold Oostra: <i>Implicational Existential Graphs</i> • Alexander De Klerck, Leander Vignero and Lorenz Demey: <i>Category Theory for Aristotelian Diagrams: The Debate on Singular Propositions</i> 	Paper Session 2, <i>room S2</i> Chair: Guy Marshall <ul style="list-style-type: none"> • Marco Schorlemmer, Mohamad Ballout and Kai-Uwe Kühnberger: <i>Generating Qualitative Descriptions of Diagrams with a Transformer-based Language Model ion 2</i> • Maximilian Kasperowski, Niklas Rentz, Sören Domrös and Reinhard von Hanxleden: <i>KIELER: A Text-First Framework for Automatic Diagramming of Complex Systems</i> • Sören Domrös and Reinhard von Hanxleden: <i>Diagram Control and Model Order for Sugiyama Layouts</i> 	Workshop Diagrams and Mathematical Practice, <i>Senatssaal tba</i>
10:30	11:00	Refreshment Break <i>Entrance</i>		
11:00	12:30	Paper Session 3, <i>room S1</i> Chair: Lorenz Demey <ul style="list-style-type: none"> • Stef Frijters and Atahan Erbas: <i>Aristotelian</i> 	Paper Session 4, <i>room S2</i> Chair: Emmanuel Manalo <ul style="list-style-type: none"> • Gudula Volbers, Janina Krawitz, Stanislaw Schukajlow and Gilbert Greefrath: <i>Negative</i> 	Workshop Diagrams and Mathematical Practice, <i>Senatssaal tba</i>

		<p><i>Diagrams as Logic Diagrams</i></p> <ul style="list-style-type: none"> • Risako Ando, Kentaro Ozeki, Takanobu Morishita, Hirohiko Abe, Koji Mineshima and Mitsuhiro Okada: <i>Can Euler Diagrams Improve Syllogistic Reasoning in Large Language Models?</i> • Francesco Bellucci: <i>Reference by Occurrence</i> 	<p><i>Impact of Drawing on Problem Solving: An Eye-Tracking Study on Non-linear Geometry Problems</i></p> <ul style="list-style-type: none"> • Erica de Vries, Neil Schwartz and Martin Galilee: <i>Learning magnitude of energy consumption with symbolic or iconic representations</i> • Giulia Miotti: <i>Diagrams and their role in economics as problem-solving devices and knowledge-improving tools. The case of the Phillip Machine</i> 	
12:30	14:00	<i>Lunch Entrance</i>		
14:00	15:30	<p>Paper Session 5, <i>room S1</i> Chair: Mitsuhiro Okada</p> <ul style="list-style-type: none"> • Xinyuan Yan, Peter Rodgers, Peter Rottmann, Daniel Archambault, Jan-Henrik Haurert and Bei Wang: <i>EulerMerge: Simplifying Euler Diagrams Through Set Merges</i> • Peter Rodgers, Peter Chapman, Andrew Blake, Martin Nöllenburg, Markus Wallinger and Alexander Dobler: <i>Hoop Diagrams: A Set Visualization Method</i> • Amirouche Moktefi, Reetu Bhattacharjee and Jens Lemanski: <i>Representing uncertainty with expanded Ueberweg diagrams</i> 	<p>Paper Session 6, <i>room S2</i> Chair: Henri Prade</p> <ul style="list-style-type: none"> • Stefan Helmke, Kerem Doğan, Robert Scheffler and Gregor Wrobel Domain-Specific Rules Override Aesthetic Graph Drawing Criteria: <i>An Exploration of User-Generated Diagrams</i> • Ran Lu and Emmanuel Manalo: <i>Chinese Children' Drawing in Science Class</i> • Dave Beisecker: <i>The Topology of Assertion: A Diagrammatic Rationale for Our Enduring Love of Truth</i> 	<p>Workshop Diagrams and Mathematical Practice, <i>Senatssaal</i> tba</p>
15:30	16:00	<i>Refreshment Break Entrance</i>		
16:00	18:00	<p>Paper Session 7, <i>room S1</i> Chair: Yuri Sato</p> <ul style="list-style-type: none"> • Binfeng Chen, Jing Zhao and Lin He: <i>Designing a Mind-Mapping-Assisted Comparative Literature Course in Chinese Academic Settings</i> • Emmanuel Manalo and Mari Fukuda: <i>Integration of Learning Through the Use of Self-</i> 	<p>Paper Session 8, <i>room S2</i> Chair: Peter Cheng</p> <ul style="list-style-type: none"> • Björn Gottfried: <i>Indeterminate set space diagrams</i> • Andrew Schumann: <i>Mozi's Square of Opposition and Logemes as New Logical Approach</i> • Christina Kittsteiner: <i>Schopenhauer's Sorites Diagram</i> 	<p>Workshop Diagrams and Mathematical Practice, <i>Senatssaal</i> tba</p>

		<p><i>Constructed Diagrams: Opportunities and Challenges</i></p> <ul style="list-style-type: none"> Piotr Kozak: <i>What Does it Mean that Diagrams Represent Constructions?</i> 	<ul style="list-style-type: none"> Fangzhou Xu and Ahti-Veikko Pietarinen: <i>Peirce's extended Euler diagrams and the system Atl based on Ladd-Franklin's exclusion relations</i> 	
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Day 5: Tuesday, October 1, 2024		
09:30	10:30	<p>Keynote 3 <i>Aula</i> Barbara Tversky: <i>Where Diagrams Come From</i></p>
10:30	11:00	Refreshment Break <i>Entrance</i>
11:00	13:00	<p>Graduate Symposium, <i>room S1</i> Chair: Lenoie Bosveld</p> <p>Presentations: Vincent Abbott: <i>Robust Diagrams for Deep Learning Architectures: Applications and Theory</i> Maylee Mann and Jacqueline Marks: <i>The Metaphysics Jellyfish: A Structural Remodel of the Metaphysics Matrix and Elaboration on Experiential Benefits</i></p> <p>Short presentations: Mary Louise Elworth Hwei-Shin Harriman Christina Kittsteiner Ran Lu Peter Rottmann Xinyuan Yan</p>

Short paper: 20min. (incl. discussion)

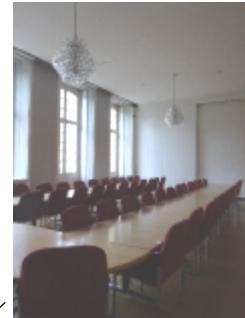
Long paper/Abstract: 30 min. (incl. discussion)

Location: Schloss Münster, Schlosspl. 2, 48149 Münster, Germany

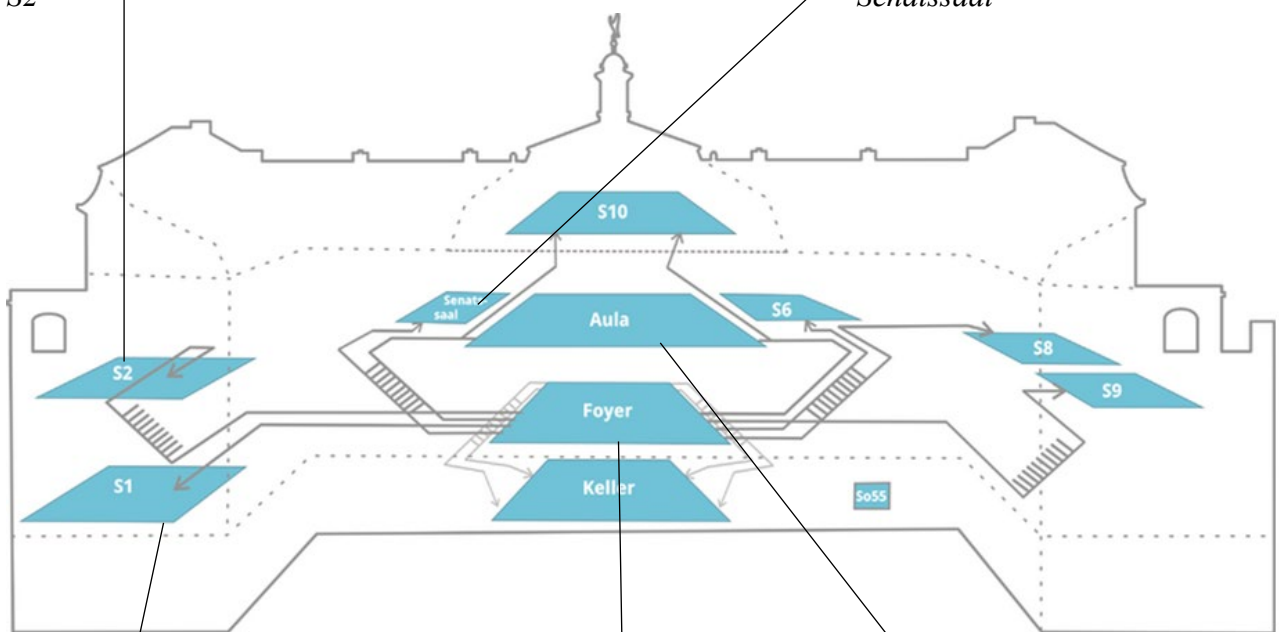
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S2



Senatssaal



S1



Aula

Foyer
Entrance,
Registration, Breaks