

**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 Petruccio 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 <ul style="list-style-type: none"> <li>Alessio Moretti: <i>The Geometry of 4-valued Contradiction: the Oppositional Quadri-Segment B.4.2</i></li> <li>Lorenz Demey and Hans Smessaert: <i>Euler Diagrams, Aristotelian Diagrams and Syllogistics</i></li> <li>Atsushi Shimojima and Dave Barker-</li> </ul>	Paper Session 2, room S2 <ul style="list-style-type: none"> <li>Johanna Schoenherr, Anselm R. Strohmaier and Stanislaw Schukajlow: <i>Meta-Analysis of Visualization Interventions in Mathematics Education</i></li> <li>Peter Cheng and Timon Boehm: <i>Why Feynman Diagrams Are Worth 10,000 formulas: A Representational Epistemic Analysis</i></li> </ul>	Workshop: Peirce's Philosophy of Notation, Senatssaal <ul style="list-style-type: none"> <li>Amirouche Moktefi: <i>On the plurality of logical notations</i></li> <li>Dave Beisecker: <i>Peirce, Hegel, and Diagrams of Pure Being and Nought</i></li> </ul>

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

<b>Day 3: Sunday, September 29, 2024</b>		
09:30	10:30	Keynote 2, Aula 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> <ul style="list-style-type: none"> <li>• Tullio Aebischer: <i>A diagram helping the mathematical problem solving procedure</i></li> <li>• Fernando Soler Toscano and Marcos Bautista López Aznar: <i>An Innovative Approach to Diagrams Representation: The Marlo Diagrams Web Page</i></li> <li>• Noah Greenstein: <i>On the Formal Cause of Diagrams: Mimesis &amp; Phenomenology</i></li> <li>• 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></li> <li>• Claudia Anger and Lorenz Demey: <i>The Region Connection Calculus, Euler Diagrams and Aristotelian Diagrams</i></li> <li>• 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></li> <li>• Wode Ni, Sam Estep, Hwei-Shin Harriman, Jiří Minarčík and Joshua Sunshine: <i>Codifying Visual Representations</i></li> <li>• 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></li> <li>• Henri Prade and Gilles Richard: <i>Diagrammatic analogical reasoning</i></li> </ul>
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	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Paper Session 1, <i>room S1</i></p> <ul style="list-style-type: none"> <li>• Bryan Pickel and Brian Rabern: <i>A Compositional Semantics for Venn diagrams</i></li> <li>• Arnold Oostra: <i>Implicational Existential Graphs</i></li> <li>• Alexander De Klerck, Leander Vignero and Lorenz Demey: <i>Category Theory for Aristotelian Diagrams: The Debate on Singular Propositions</i></li> </ul> </div> <div style="width: 45%;"> <p>Paper Session 2, <i>room S2</i></p> <ul style="list-style-type: none"> <li>• Marco Schorlemmer, Mohamad Ballout and Kai-Uwe Kühnberger: <i>Generating Qualitative Descriptions of Diagrams with a Transformer-based Language Model ion 2</i></li> <li>• Maximilian Kasperowski, Niklas Rentz, Sören Domrös and Reinhard von Hanxleden: <i>KIELER: A Text-First Framework for Automatic Diagramming of Complex Systems</i></li> <li>• Sören Domrös and Reinhard von Hanxleden: <i>Diagram Control and Model Order for Sugiyama Layouts</i></li> </ul> </div> <div style="width: 10%;"> <p>Workshop Diagrams and Mathematical Practice, <i>Senatssaal tba</i></p> </div> </div>
10:30	11:00	Refreshment Break <i>Entrance</i>
11:00	12:30	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Paper Session 3, <i>room S1</i></p> <ul style="list-style-type: none"> <li>• Stef Frijters and Atahan Erbas: <i>Aristotelian Diagrams as Logic Diagrams</i></li> <li>• Risako Ando, Kentaro Ozeki, Takanobu Morishita, Hirohiko Abe,</li> </ul> </div> <div style="width: 45%;"> <p>Paper Session 4, <i>room S2</i></p> <ul style="list-style-type: none"> <li>• Gudula Volbers, Janina Krawitz, Stanislaw Schukajlow and Gilbert Greefrath: <i>Negative Impact of Drawing on Problem Solving: An Eye-Tracking Study on Non-linear Geometry Problems</i></li> </ul> </div> <div style="width: 10%;"> <p>Workshop Diagrams and Mathematical Practice, <i>Senatssaal tba</i></p> </div> </div>

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

		<i>Diagrams Represent Constructions?</i>		
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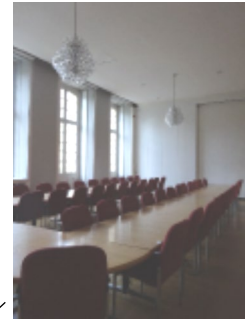
Day 5: Tuesday, October 1, 2024		
09:30	10:30	Keynote 3 <i>Aula</i> Barbara Tversky: <i>Where Diagrams Come From</i>
10:30	11:00	Refreshment Break <i>Entrance</i>
11:00	13:00	Graduate Symposium, <i>room S1</i> Presentations: Vincent Abbott: <i>Robust Diagrams for Deep Learning Architectures: Applications 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>  Short presentations: Mary Louise Elworth Hwei-Shin Harriman Christina Kittsteiner Ran Lu Peter Rottmann Xinyuan Yan

Short paper: 20min. (incl. discussion)  
Long paper/Abstract: 30 min. (incl. discussion)

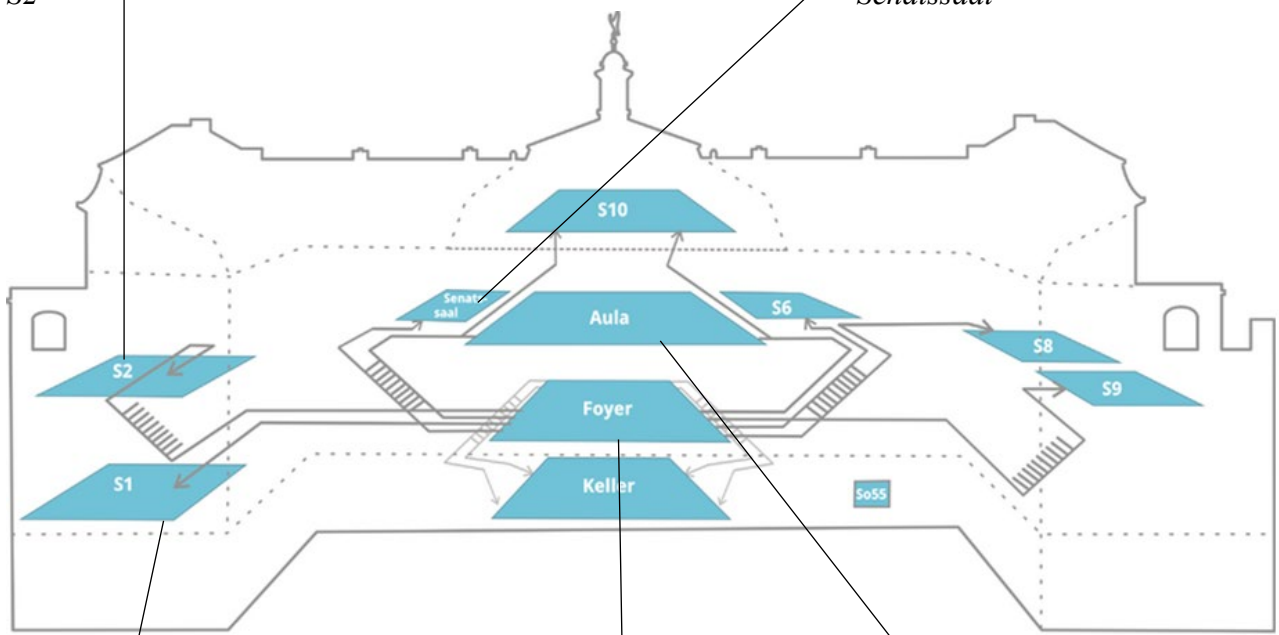
**Location:** Schloss Münster, Schlosspl. 2, 48149 Münster, Germany  
<https://maps.app.goo.gl/yPwEHWKGQ8b9Bo2m8>



S2



Senatssaal



S1



Aula

Foyer  
Entrance,  
Registration, Breaks