

DAY 1 - TUESDAY, 28.04.2026

Pre-Conference Workshops	Short Ext.	09:00 09:00	10:30 12:30	Marsilius Kolleg Lecture Hall ATV 106 Marsilius Kolleg Sem. Room 2 Marsilius Kolleg Sem. Room 1 H1.00.028 A0.225	W01 W02 W03 W07 W10 W11	<ul style="list-style-type: none"> ➤ Building connected data ecosystems - how to facilitate FAIR data workflows across tools and services ➤ Creating and inspecting Research Object Crates - the interactive way ➤ Creating RDF-compliant metadata templates with the AIMS Metadata Profile Service ➤ Making Helmholtz Data Assets Visible via the Helmholtz Knowledge Graph ➤ From ontology to ELN - Create your made-to-measure semantic metadata platform ➤ Semantic x-Lab: Bridging Laboratory Metadata and Semantic Knowledge Discovery 	Emanuel Söding, Rory Macneil, Tilo Mathes Christopher Raquet J. Windeck, K. Dukkart, M. Fuhrmans, M. Kern Volker Hofmann Fabian Kirchner D. Pape, F. Mühlbauer, M. Luzi-Helbing, M. Voigt, O. Knodel
Coffee Break		10:30	11:00	Foyer			
Pre-Conference Workshops	Short	11:00	12:30	Marsilius Kolleg Sem. Room 2 Marsilius Kolleg Sem. Room 1 ATV 106 Marsilius Kolleg Lecture Hall	W04 W05 W06 W08	<ul style="list-style-type: none"> ➤ From Chaos to Clarity: Smart Sample Management with LinkAhead & O2A SAMPLES ➤ From Shared Challenges to Shared Action: Metadata Harmonization in Practice ➤ Make your own FAIR Digital Objects - the graphical way ➤ Semantics Hidden in the Dark - Make Datasets Shine (Practical Integration of Terminology Services for FAIR Data) 	Maren Rebke, Florian Spreckelsen Oonagh Brendike-Mannix Andreas Pfeil Claudia Martens, Anette Ganske
Lunch		12:30	13:30	Foyer			
Welcome		13:30	14:00	Lecture Hall		➤ Official Opening of the HMC Conference 2026	S. Lorenz, K. Maier-Hein, M. Nolden, V. Hofmann
Keynote		14:00	15:00	Lecture Hall		➤ Making FAIR Happen: Culture Change Across the Research Ecosystem	Marta Teperek with Dani Metilli
Coffee Break		15:00	15:30	Foyer			
Talk Session Metadata in Action: Embedding Quality and Context into Research Infrastructures		15:30	17:00	Lecture Hall	T01 T02 T03 T04 T05 T06	<ul style="list-style-type: none"> ➤ Data Quality Assessment Results as Decision-Relevant Enriched Metadata for Decision Support Systems ➤ Self-assessment for FAIR data publication: empowering researchers to improve dataset quality before submission ➤ Ontology-Driven FAIR Sensor Maintenance Metadata for Environmental Observations ➤ FAIR AIMS - bringing rich metadata for physical samples into the digital world ➤ From Siloed Experiments to Collective Intelligence: Operationalizing the Post-FAIR Laboratory ➤ Open data, open access, open source: Liberating metadata for OA books and chapters 	Carsten Oliver Schmidt Marleen Marynissen Smruthishree Srinivasa Kirsten Elger Nick Garabedian Tobias Steiner
Poster & Demo Session		17:00	19:00	Foyer and 1 st Floor		➤ Explore a wide range of topics and connect in an open and interactive setting - with drinks. Details on overview poster & website	
Welcome Reception		18:00	21:00	Foyer		➤ Offering light finger food - a perfect opportunity to continue discussions and network in a relaxed atmosphere	

DAY 2 - WEDNESDAY, 29.04.2026

Talk Session Software Interoperability for (Meta)data Acquisition		09:00	10:30	Lecture Hall	T07 T08 T09 T10 T11 T12	<ul style="list-style-type: none"> ➤ FDO-Ops Prototype for machine-actionable FDOs ➤ O2A SAMPLES: From Expedition to Digital Database - A Unified Framework for Sample Digitization and Interoperability ➤ LabID-Prov: Unifying experimental and computational data provenance with LabID ➤ Deploying Kadi4Mat Workflows in Laboratory Environments for Reproducible and Guided Experimental Research ➤ Using persistent identifiers (PIDs) as a vehicle for achieving interoperability ➤ TeSSHUB - a Federated Training Catalogue Infrastructure 	Nicolas Blumenröhr Maren Rebke Laurent Thomas Johannes Steinhölb Rory Macneil Martin Voigt
Coffee Break		10:30	11:00	Foyer			
Talk Session Ontology-Driven Metadata Harmonization: Closing Semantic Gaps		11:00	12:30	Lecture Hall	T13 T14 T15 T16 T17	<ul style="list-style-type: none"> ➤ Local Semantics with Global Meaning ➤ Interoperable Metadata For Describing Health Studies - The NFDI4Health Metadata Schema ➤ Integrating Domain Ontologies and Workflow Metadata for Interoperable Computational Experiments ➤ MOLSIM: An Interoperable Ontology for Representing Biomolecular Simulation ➤ Toward FAIR and Reproducible Data Quality Control: A Use Case-Driven Data-Quality Processing Metadata Schema for Time Series Data 	K. Gerald van den Boogaart Martin Golebiewski Pavan L. Veluvali Fathoni Musyaffa Ulrich Loup
Lunch		12:30	13:30	Foyer			
Keynote		13:30	14:30	Lecture Hall		➤ Constructing Enterprise RDF Knowledge Graphs: Foundations for Neuro-Symbolic AI	Jan Portisch
Group Picture		13:30	13:40	Foyer			
Poster & Demo Session		14:30	17:00	Foyer and 1 st Floor		➤ Explore a wide range of topics and connect in an open and interactive setting - with coffee. Details on overview poster & website	
Social Event - Neckar Cruise		18:00	22:00	Neckarstaden 25, Heidelberg		➤ Relaxed setting for informal exchange and networking. Participation is limited to registered attendees.	

DAY 3 - THURSDAY, 30.04.2025

Keynote		09:00	10:00	Lecture Hall		➤ tba	Oliver Stegle
Coffee Break		10:00	10:30	Foyer			
Talk Session Human-Machine Collaboration in (Meta)data Acquisition		10:30	12:15	Lecture Hall	T19 T20 T21 T22 T23 T24	<ul style="list-style-type: none"> ➤ A Semantically Integrated Framework for Robotic Data Acquisition in Mechanical Testing ➤ Automated Metadata Acquisition in Energy Research using BPMN-driven Workflows at the Energy Lab at KIT ➤ A Semantic Laboratory Assistant for Metadata Acquisition in Electronic Lab Notebooks ➤ A Collaborative Approach to Metadata Interoperability: PID4NFDI, TS4NFDI, and RSpace ➤ The Agentic Automation Canvas: A Metadata Framework for Human-AI Task Delegation ➤ AIMWORKS: Template-Driven, Agentic Framework for FAIR Knowledge Graph Construction in Hydrogen Technologies 	Eric Breitbarth Jan Martin Reckel Tina Boroukhian Tilo Mathes Sebastian Lobentanzer Mohammad J. Eslamibidgoli
Wrap Up		12:15	12:30	Lecture Hall		➤ Official closing of the HMC Conference 2026 and awards	
Light Lunch		12:30	13:30	Foyer			