NFDI4Cat & NFDI4ING · #CuttingEdge Sessions

Programm · 7.–9. December 2026

Monday, 07.12.2026

07.12.	**10:00**	**16:30**	**390**		**Internal meeting**	**NFDI4Cat Consortium Meeting**	
07.12.	*16:30*	*17:00*	*30*		*Break*	*Welcome Coffee*	
07.12.	**17:00**	**18:10**	**70**			**Opening & Keynotes**	***Session Chair:*** **tbd**
07.12.	17:00	17:10	10		Opening	Opening Statements	Peter Pelz & Andreas Förster
07.12.	17:10	17:40	30	Keynote	**Keynote**	**Learning What Matters: Patterns, Predictions, and Actions for Materials**	Dr. Kevin Maik Jablonka
07.12.	17:40	18:10	30	Keynote	**Keynote**	**Research Data Infrastructures in the Age of Generative AI**	Prof. Dr. Sonja Schimmler
07.12.	*18:10*	*open*			*Event*	*Evening Event & Poster Viewing*	

Tuesday, 08.12.2026

08.12.	**09:00**	**09:30**	**30**			**Morning Keynote**	***Session Chair:*** **tbd**
08.12.	09:00	09:30	30	Morning Keynote	**Keynote**	**tbd**	Prof. Dr. Chris Eberl
08.12.	**09:30**	**10:30**	**60**	**SESSION**		**Metadata & Semantics**	***Session Chair:*** **tbd**
08.12.	09:30	09:45	15	Say What You Mean: Metadata & Semantics	Talk	CoreMeta4Cat: Structured Metadata Sharing in Catalysis Research	Mohammad Khatamirad
08.12.	09:45	10:00	15	Say What You Mean: Metadata & Semantics	Talk	Special Data Requirements for Bio-Catalysis Data and Tools to handle them	Mark Doerr
08.12.	10:00	10:15	15	Say What You Mean: Metadata & Semantics	Talk	Semantic PEA Data Sheets as a FAIR data basis for agent-supported modular plant configuration	Sascha Lamm
08.12.	10:15	10:30	15	Say What You Mean: Metadata & Semantics	Talk	An LLM-Assisted Workflow for Ontology-based Metadata Extraction from Heterogeneous Research Dataset	Marc Völkenrath
08.12.	*10:30*	*11:00*	*30*		*Break*	*Coffee Break & Poster Viewing*	
08.12.	11:00	11:30	30		**Keynote**	tbd	Dr. Miriam Eisenbart
08.12.	**11:30**	**12:45**	**75**	**SESSION**		**AI, Agents & Interactive Environments**	***Session Chair:*** ***tbd***
08.12.	11:30	12:00	30	Smarter Workflows: AI, Agents & Interactive Environments	**Keynote**	**LLM-Supported Research Data Management in the Engineering Sciences: Experiences from NFDI4ING**	Elena Volkanovska
08.12.	12:00	12:15	15	Smarter Workflows: AI, Agents & Interactive Environments	Talk	Beyond Chatbots: Why RDM Infrastructures Must Shift Towards Agentic AI Workflows	Ulrich Krieger
08.12.	12:15	12:30	15	Smarter Workflows: AI, Agents & Interactive Environments	Talk	freeda: RMU's Smart Science Space connecting Research Data, People and Infrastructure	Ning Xia
08.12.	12:30	12:45	15	Smarter Workflows: AI, Agents & Interactive Environments	Talk	Beyond Notebooks: The NFDI4ING Jupyter Service as an Interactive RDM Environment	Anett Seeland
08.12.	*12:45*	*13:45*	*60*		*Break*	*Lunch & Poster Viewing*	
08.12.	**13:45**	**15:30**	**105**	**SESSION**		**PIDs, Knowledge Graphs & Storage**	***Session Chair:*** ***tbd***
08.12.	13:45	14:15	30	Identify, Find, Preserve: PIDs, Knowledge Graphs & Storage	**Keynote**	**PIDINST in Practice: Mapping the Landscape of Research Instrument Registration for Catalysis and Engineering**	Dr. Frederik Springer
08.12.	14:15	14:30	15	Identify, Find, Preserve: PIDs, Knowledge Graphs & Storage	Talk	Instrument identifiers in the active research workflow	Tilo Mathes
08.12.	14:30	14:45	15	Identify, Find, Preserve: PIDs, Knowledge Graphs & Storage	Talk	Enhancing the Re-use of Engineering Research Output with the TIB Terminology Service and the Open Research Knowledge Graph	Angelina Kraft
08.12.	14:45	15:00	15	Identify, Find, Preserve: PIDs, Knowledge Graphs & Storage	Talk	SciD-QuESt: A Reusable Human-in-the-Loop Library for Steerable Knowledge Extraction for Research Knowledge Graphs	Sushant Aggarwal
08.12.	15:00	15:15	15	Identify, Find, Preserve: PIDs, Knowledge Graphs & Storage	Talk	Serving NFDI Communities with FAIR Research Data Storage	Marius Politze
08.12.	15:15	15:30	15	Identify, Find, Preserve: PIDs, Knowledge Graphs & Storage	Talk	Challenges and Opportunities of Long Term Preservation of Research Data and Research Software	Michael Goedicke
08.12.	*15:30*	*16:00*	*30*		*Break*	*Coffee Break & Poster Viewing*	
08.12.	**16:00**	**17:00**	**60**	**SESSION**		**Workshops (parallel)**	
08.12.	16:00	17:00	60	Workshops (parallel)	Workshop	Take the LEGO®4NFDI Challenge and Get in Touch with Reproducibility, Metadata & (Electronic) Lab Notebooks	Évariste Demandt

08.12.	16:00	17:00	60	Workshops (parallel)	Workshop	MathModDB in Practice: Discovering, Documenting, and Reusing Mathematical Models	Thomas Koprucki
08.12.	16:00	17:00	60	Workshops (parallel)	Workshop	Metathon: From Metadata Guidelines to Practical Tools across NFDI4Cat and NFDI4ING	Alexander Sommer-Behr
08.12.	**17:00**	**18:00**	**60**	**SESSION**		**Assessment, Data Models & Guidelines**	***Session Chair:*** ***tbd***
08.12.	17:00	17:15	15	Putting FAIR into Practice: Assessment, Data Models & Guidelines	Talk	Assessing Catalysis Data Reuse in NFDI4Cat	Philipp Stangl
08.12.	17:15	17:30	15	Putting FAIR into Practice: Assessment, Data Models & Guidelines	Talk	Who does the RDM? CaReD moves FAIR data work from catalysis researchers into data models	David Linke
08.12.	17:30	17:45	15	Putting FAIR into Practice: Assessment, Data Models & Guidelines	Talk	How to be FAIR in the Engineering Sciences: Results from an NFDI4ING Special Interest Group	Mario Moser
08.12.	17:45	18:00	15	Putting FAIR into Practice: Assessment, Data Models & Guidelines	Talk	Workflows for Managing Heterogeneous Research Data in the Built Environment	Roger Winkler
08.12.	*18:00*	*open*			*Event*	*Evening Event with FoodTruck & Poster Viewing*	

Wedensday, 09.12.2026

09.12.	**09:00**	**10:00**	**60**	**SESSION**		**Services & Workflows in Research Practice**	***Session Chair:*** **tbd**
09.12.	09:00	09:30	30	RDM where Research Happens: Services & Workflows in Research Practice	**Keynote**	**Services as foundation for research data infrastructure - in NFDI4Energy and the NFDI**	Dr.-Ing. Stephan Ferenz
09.12.	09:30	09:45	15	RDM where Research Happens: Services & Workflows in Research Practice	Talk	CAES^{3}AR: Collaborative and efficient scientific software support architecture	Camilla Lüttgens
09.12.	09:45	10:00	15	RDM where Research Happens: Services & Workflows in Research Practice	Talk	From FAIR-Oriented HDF5 Data Management to the Semantic Laboratory: Practical Workflows with the h5RDMtoolbox	Balazs Pritz
09.12.	10:00	10:15	15	RDM where Research Happens: Services & Workflows in Research Practice	Talk	Verification and validation of simulation models with complete provenance tracking based on ROCrates and workflow systems	Jörg Unger
09.12.	10:15	11:15	60		**Panel Discussion**	**tbd**	**Joanne Yoeomas**
09.12.	*11:15*	*11:45*	*30*		*Break*	*Coffee Break & Poster Viewing*	
09.12.	**11:45**	**12:45**	**60**	**SESSION**		**Training, Support & Skills**	***Session Chair:*** **tbd**
09.12.	11:45	12:00	15	Growing the Community: Training, Support & Skills	Talk	Research Data Management in the Doctoral Center for System-Integrated Engineering Science	Werner Eißler
09.12.	12:00	12:15	15	Growing the Community: Training, Support & Skills	Talk	NFDI4ING's Summer School Initiative: Hands-on RDM Training for the German Engineering Sciences	Andreas Noback
09.12.	12:15	12:30	15	Growing the Community: Training, Support & Skills	Talk	Training & Education in Data Literacy: Transfer from best-practice examples in chemistry to other disciplines?	Jochen Ortmeyer
09.12.	12:30	12:45	15	Growing the Community: Training, Support & Skills	Talk	Strategic Academia–Industry Collaboration for Tool Assessment	Arjun Neyyathala
09.12.	12:45	13:00	15		Closing	Closing Remarks & Farewell	
09.12.	*13:00*	*14:00*	*60*		*Break*	*Lunch*	