

# Formal Ontologies meet Industry



First day (12th): FOMI 2022 workshop

Time		Sessions - Grand Amphitheater
08:45	09:30	<b>Introduction to FOMI 2022</b> - Hedi Karray, Emilio Sanfilippo
09:30	10:15	<b>Keynote speech</b> - Stephan Grimm
10:15	10:45	<b>Functional modelling in engineering: A first comparison of approaches on two problems</b> - Francesco Compagno
10:45	11:15	<b>Taxonomy of Manufacturing Joining Operations based on Process Characterization</b> - Arkopaul Sarkar
11:15	11:30	<b>Coffee break</b>
11:30	12:00	<b>Ontology for Industrial Engineering: A DOLCE compliant approach</b> - Walter Terkaj
12:00	12:30	<b>The Industrial Ontology Foundry (IOF)</b> - Milos Drobnakovic
12:30	13:00	<b>The CHAMEO ontology: Exploiting EMMO's multiperspective versatility for capturing materials characterisation</b> - Pierluigi Del Nostro
13:15	14:40	<b>Lunch Break</b>
14:45	15:30	<b>Keynote speech</b> - Markus Stumptner
15:30	16:00	<b>Towards an ontology of offshore petroleum production equipment</b> - Mara Abel
16:00	16:30	<b>Requirements for an Ontology of Asset Management</b> - Megan Katsumi
16:30	16:45	<b>Coffee break</b>
16:45	17:05	<b>Multi-perspective approach to integrate domain-specific semantics into the system model</b> - Elaheh Maleki
17:05	17:25	<b>KIDE4Assistant: an Ontology-Driven Dialogue System Adaptation for Assistance in Maintenance Procedure</b> - Cristina Aceta, Patricia Casla, Izaskun Fernandez,
<b>End of Day 1</b>		

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Second day (13th): OntoCommons



Time		Sessions		
08:30	09:15	<b>Introduction to OntoCommons and roadmap</b> - Hedi Karray [Grand Amphitheater]		
09:15	10:00	<b>Keynote speech 1</b> - Heiner Oberkampff [Grand Amphitheater]		
10:00	10:15	Coffee break		
Parallel sessions		Room E1	Room E2	Room E3
<b>Session title</b>		<b>Upper Ontology and Standards for Industry</b> - Host: Emilio Sanfilippo	<b>Upper Ontology and Standards for Materials Science</b> - Host: Thomas Anke	<b>FAIR Domain Ontologies for Industry</b> - Host: Yann Le Franc
10:15	10:45	<b>Presentation 1</b> - Stefano Borgo	<b>Presentation 1</b> - Gerhard Goldbeck	<b>Introduction and How to make Ontologies FAIR</b> - Yann Le Franc
10:45	11:15	<b>Presentation 2</b> - David Leal	<b>Presentation 2</b> - Emanuele Ghedini	<b>A concrete step toward FAIR ontologies : publishing ontologies in specialised ontology repositories</b> - Arkopaul Sarkar <b>Manual evaluation: using the FAIR Semantics recommendations</b> - Yann Le Franc
11:15	12:00	<b>Panel Discussion: Ontology-based standardisation of industrial data</b> - Host: Hedi Karray. Panellists: Serm Kulvatunyou, Elisa Kendall, David Leal, Michela Magas	<b>Panel discussion: Ontology and standards for material science</b> - Host: Joana Morgado. Panellists: Gerhard Goldbeck, Emanuele Ghedini, Silvana Muscella, Norman Swindells, Alexandru Todor.	<b>Automated evaluation: FOOPS!</b> - Maria Poveda <b>OFAIRe and OntoPortal</b> - Clement Jonquet <b>Toward the harmonisation of ontology metadata</b> - Yann Le Franc
12:00	13:30	Lunch break		
Parallel sessions		Room E1	Room E2	Room E3
<b>Session title</b>		<b>Domain ontology harmonisation for Industry</b> - Host: Lan Yan and Mirco Soderi	<b>Domain ontology harmonisation for materials science</b> - Host: Gerhard Goldbeck	<b>Industrial demonstration</b>
13:30	14:00	<b>Presentation 1</b> - Emilio Sanfilippo and Arkopaul Sarkar	<b>Presentation 1</b> - Joana Morgado, Dirk Helm	<b>Cirqulor</b> - Roy Brooks
14:00	14:30	<b>Presentation 2</b> - Barry Smith <b>Presentation 3</b> - Noel Vizcaino	<b>Materials Informatics for Advanced Materials</b> - Pedro Portella	<b>SimPhoNy: knowledge-graph based interoperability</b> - José Manuel Dominguez
14:30	15:15	<b>Panel Discussion: Domain ontology harmonisation for industry</b> - Host: Izaskun Fernandez. Panellists: Chris Partridge, Emilio Sanfilippo, Alejandro Salado, Will Sobel	<b>Panel Discussion: Domain ontology harmonisation for materials science</b> - Host: Gerhard Goldbeck. Panellists: Heiner Oberkampff, Dirk Helm, Thomas Hanke, Alexandru Todor	<b>Airbus</b> - Rebecca Arista
15:15	15:30	Coffee break		
15:30	16:15	<b>Keynote speech 2</b> - Elisa Kendall [Grand Amphitheater]		
16:15	17:00	<b>Keynote speech 3</b> - Chris Partridge [Grand Amphitheater]		
17:00	17:15	Vote of thanks		
Onward: social events				

# Formal Ontologies meet Industry

Third day (14th): Industrial Ontology Foundry and Domains

Time		Sessions					
09:00	09:15	<b>Welcome Note and Introduction</b> - Dimitris Kiritsis [Grand Amphitheater]					
09:15	10:00	<b>Keynote speech 1</b> - Serm Kulvatunyou [Grand Amphitheater]					
10:00	10:30	Coffee break					
		Parallel sessions	Room E1	Parallel sessions	Room E2	Room E3	
			<b>Production and Supply-chain - PT.1</b> Hosts: Dušan Sormaz and Farhad Ameri		<b>Products, Systems and Digital Twins PT.1</b> - Hosts: Ana Correia and Jinzhi Lu	<b>Materials, Quality and Maintenance PT.1</b> - Hosts: Foivos Psarommatas, Thomas Hanke, Melinda Hodgekiewicz	
10:30	10:50		<b>Overview of progress in IOF PPS ontologies</b> - Dušan Sormaz	10:30	10:45	<b>IOF Maintenance Reference ontology</b> - Melinda Hodgekiewicz	
10:50	11:10		<b>Current State of Supply Chain Reference Ontology</b> - Farhad Ameri	10:45	11:00	<b>Data cleaning – a practical and value-adding use case for modular ontologies</b> - Melinda Hodgekiewicz	
11:10	11:40		<b>Enhance metamodels approach supporting models for manufacturing (MM) methodology</b> - Fernando Mas	11:00	11:15	<b>Are ontologies a practical solution to digitalising maintenance?</b> - Pavan Addepalli	
11:40	12:00		<b>Supporting Product Services Systems over the Operational Life</b> - Oliver Stoll, Shaun West	11:15	11:30	<b>Ontology-Based Maintenance: The Use Case of BLMGroup in Ontocommons</b> - Francesco Compagno	
12:00	12:30		<b>Panel discussion: Production planning and scheduling</b> - Host: Farhad Ameri Panelists: Will Sobel, Sebastian Scholze, Oliver Stoll, Shaun West	11:30	11:45	<b>Converging ontology and MBSE to support aircraft manufacturing system design</b> - Rebeca Arista and Xiaochen Zheng	
				11:45	12:25	<b>Panel discussion: Systems Engineering</b> - Host: Jinzhi Lu. Panelists: Rebeca Arista, Xiaochen Zheng, Ming Yu, Alejandro Salido	
12:30	14:00	Lunch break					
		Parallel sessions	Room E1	Parallel sessions	Room E2	Parallel sessions	
			<b>Production and Supply-chain - PT.2</b> Hosts: Dušan Sormaz and Farhad Ameri		<b>Products, Systems and Digital Twins PT.2</b> Hosts: Ana Correia and Jinzhi Lu	<b>Materials, Quality and Maintenance -PT.2</b> Hosts: Foivos Psarommatas, Thomas Hanke, Melinda Hodgekiewicz	
14:00	14:20		<b>An ontological approach for Traceability in Agri-food Supply Chains</b> - Farhad Ameri	14:00	14:15	<b>IOF Materials Science and Engineering Workgroup</b> - Thomas Hanke	
14:20	14:40		<b>An Ontology-based Engineering system to support aircraft assembly process design</b> - Xiaochen Zheng and Rebeca Arista	14:15	14:30	<b>Matportal.org The Repository for Materials Science and Engineering Ontologies</b> - Alexandru Todor	
14:40	15:00		<b>Presentation 3</b> - Alejandro Salido	14:30	14:45	<b>IOF/Mat-o-Lab Toolchain</b> - Thomas Hanke	
15:00	15:45		<b>Panel discussion: Capability</b> - Host: Arkopaul Sarkar Panelists: Barry Smith, Stefano Borgo, Farhad Ameri, Will Sobel	14:45	15:00	<b>Panel discussion: Materials Science</b> - Host: Gerhard Goldbeck, Panelists: Alexandru Todor, Thomas Hanke, Heiner Oberkämpf.	
				15:00	15:15	<b>Zero Defect Manufacturing the next standard for quality assurance</b> - João Pedro Mendonça uninova	
				15:15	15:45	<b>Products and Services bridge concepts</b> - Francesco Antonio Zaccarini	
				15:15	15:45	<b>Panel discussion: Products and Services</b> - Host: Ana Correia, Panelists: Dragan Stokic, Xiaochen Zheng, Sebastian Scholze, Marcela Vegetti or Gabriela Henning	
15:45	16:00	Coffee break					
16:00	16:25		<b>What can ontological analyses of value and risk teach us about goals, plans, and prevention?</b> - Jim Logan	16:00	16:15	<b>Standards-Based Self Aware Manufacturing Systems</b> - William Sobel	
16:25	16:50		<b>Panel Discussion: Production Planning and Scheduling</b> - Host: Dušan Sormaz Panelists: Fernando Mas, Jim Logan, Mara Abel	16:15	16:30	<b>Digital twins and the problem of model-induced escape</b> - Barry Smith	
				16:30	16:45	<b>Impact of digital twin innovation in the industrial sector</b> - Sjoerd Rongen	
16:15	16:30			16:15	16:30	<b>The role of semantics in industrial IoT (IIoT) towards Zero Defect Manufacturing</b> - John Soldatos	
				16:15	16:30	<b>Systems modelling with Information Modelling Framework (IMF) and the impact to the manufacturing industry</b> - Arid Waeiler	
17:00	17:45	<b>Keynote speech</b> - Mara Abel [Grand Amphitheater]					
17:45	18:15	<b>IOF Governance and Architecture</b> - Will Sobel [Grand Amphitheater]					

# Formal Ontologies meet Industry



Fourth day (15th): Industrial Training and Demo

Time		Sessions
08:45	09:00	<b>Welcome and Summary</b> - Hedi Karray [Amphitheater B]
<b>FOMI posters presentations [Amphitheater B]</b>		
09:00	09:15	<b>Towards An Open Translation Environment for Supporting Translators in The Material Domain.</b> - Florina Piroi
09:15	09:30	<b>Bring together model and business ontologies for protective coatings.</b> - Salim Belouettar
09:30	09:45	<b>Use of ontologies to structure and manage digital technical data of industrial assets: First steps towards an ecology of knowledge in multi-energies industry.</b> - Jean-Charles Leclerc
09:45	10:00	<b>An implementation of OWL-S to Support Semantic Discovery for SWIM.</b> - Luís Antonio Rodriguez
10:00	10:30	<b>Industrial presentation (Perpetual Lab)</b> - Gianmaria Bullegas
10:30	11:00	<b>Industrial Presentation (Total Energies)</b> - Jean-Charles Leclerc
11:00	11:15	<b>Coffee break</b>
<b>Parallel sessions</b>		<div style="display: flex; justify-content: space-around;"> <span>Room E1</span> <span>Room E2</span> </div>
<b>Session title</b>		<b>Training session 1</b>
<b>Training session 2</b>		
11:30	13:00	<b>How to develop ontology following OCES methdology</b> - Host: Emanuele Ghedini, Francesco Zaccarini, Arkopaul Sarkar
		<b>FAIR Implementation Profiles</b> - Barbara Magagna
13:00	14:00	<b>Lunch</b>
<b>Onward: social events</b>		