Wednesday, March 26

8:00 AM – 9:00 AM: Registration

8:45 AM – 9:00 AM: Semantic Scientific Knowledge Integration: Welcome

Deborah L. McGuinness, Peter Fox, Boyan Brodaric

9:00 AM – 10:40 AM: Session I – Integration Foundations (moderator: Peter Fox)

9:00 AM – 9:30 AM: (Oral 17) Grounding the Foundations of Ontology Mapping on the Neglected Interoperability Ambition

Hamid Haidarian Shahri, James Hendler, Donald Perlis

9:30 AM – 10:00 AM: (Oral 6) Ontological bridge building – using ontologies to merge spatial datasets

Catherine Dolbear, Glen Hart

10:00 AM – 10:05 AM: (Poster 4 Intro) Integrating declarative knowledge: Issues, Algorithms and Future Work

Doo Soon Kim, Bruce Porter

10:05 AM – 10:10 AM: (Poster 9 Intro) Improving Semantic Integration By Learning Semantic Interpretation Rules

Michael Glass, Bruce Porter

10:10 AM – 10:15 AM: (Poster 16 Intro) Integrating Relational Databases with Semantic Web Ontologies: Reasoning and Query Answering using Views

Linhua Zhou, Yuxin Mao, Huajun Chen

10:15 AM – 10:40 AM: Panel on Integration Foundations

10:40 AM – 11:00 AM: Break

11:00 AM – 12:30 PM: Session II - Upper Ontologies (Moderator: Deborah McGuinness)

11:00 AM – 11:30 AM: (Oral 27) DOLCE ROCKS: Integrating Geoscience Ontologies with DOLCE

Boyan Brodaric, Florian Probst

11:30 AM – 12:00 PM: (Oral 23) Towards an Ontology for Data-driven Discovery of New Materials

Kwok Cheung, John Drennan, Jane Hunter

12:00 PM – 12:30 PM: Panel on Use of Upper Ontologies for Integration

12:30 PM – 2:00 PM: Lunch
2:00 PM – 3:30 PM: Session III – Workflows and Service Composition (Moderator: Boyan Brodaric)

2:00 PM – 2:30 PM: Keynote – Scientific Workflow Design for Mere Mortals
   Bertram Ludaescher
2:30 PM – 2:35 PM: (Poster 11 Intro) Process-based Planning for Earth Science Data Acquisition
   Robert Morris, Jennifer Dungan, Petr Votava, Lina Khatib
2:35 PM – 2:40 PM: (Poster 12 Intro) Machine Learning for Earth Observation Flight Planning Optimization
   Elif Kurklu, Robert A. Morris, Nikunj Oza
2:40 PM – 2:45 PM: (Poster 15 Intro) Ontology-based Scientific Data Service Composition: A Query Rewriting-based Approach
   Huajun Chen, Linhua Zhou, Yimin Wang
2:45 PM – 3:30 PM: Panel on Workflows, Service Composition and Integration

3:30 PM – 4:00 PM: Break

4:00 PM – 4:45 PM: Session IV – Knowledge Acquisition & Semantic Science Oral and Posters (Moderator: Rahul Ramachandran)

4:00 PM – 4:30 PM: (Oral 18) A Semantic Enhanced Model for Searching in Spatial Web Portals
   Wenwen Li, Rob Raskin
4:30 PM – 4:35 PM: (Poster 2 Intro) folk2onto: an Approach to Elicit Knowledge from Folksonomies
   Aitor Almeida, Borja Sotomayor, Joseba Abaitua, Diego López de Ipiña
4:35 PM – 4:40 PM: (Poster 3 Intro) Towards Semantics-Enabled Distributed Cyberinfrastructure for Knowledge Acquisition
   Vasant Honavar, Doina Caragea
4:40 AM – 4:45 AM (Poster 1 Intro) Requirements for computer support of quantitative research processes
   H. Rijgersberg, J.L. Top, M. Meinders
4:45 AM – 4:50 AM (Poster 31 Intro) Observations and Measurements in Ecological Sampling Programs
   Phillip Dibner

4:50 PM – 5:30 PM: Session V – Summary panel/ discussion (Moderator: Boyan Brodaric and Deborah McGuinness)

4:50 PM – 5:30 PM: Discussant: Pat Langley – where are we really heading? Is it the right direction? Will this direction produce an advance for science?
Rob Raskin – What needs to be funded? What is the progression from Data to Knowledge?
Peter Fox – Informatics and semantic integration – did we make progress today?
Summary and discussion for first day

5:30 PM: End of first day
6:00 PM – 7:00 PM: Reception

Thursday, March 27

9:00 AM – 12:30 AM: Session VI – Search and Integration (Moderator: Robert Raskin)

9:00 AM – 9:30 AM: (Oral 5) HydroTagger: A Tool for Semantic Mapping of Hydrologic Terms
Michael Piasecki, Bora Beran
9:30 AM – 10:00 AM: (Oral 13) LexSearch: An Approach for leveraging Semantic Annotations to Searching Ontologies
Jyotishman Pathak, Christopher G. Chute, James D. Buntrock
10:00 AM – 10:30 AM: (Oral 27) Information Extraction from Scientific Documents in ChemXSeer
Prasenjit Mitra, C. Lee Giles, Bingjun Sun, Ying Liu

10:30 AM – 11:00 AM: Break
11:00 AM – 11:45 AM: Panel on Going from Search to Integration
11:45 AM – 12:30 PM: Keynote – Semantics and Workflows
Ewa Deelman

12:30 PM – 2:00 PM: Lunch

2:00 PM – 3:30 PM: Session VII - Geoscience Data Integration (Moderator: Michael Piasecki)

2:00 PM – 2:30 PM: (Oral 10) Opportunities for semantic technologies in the NASA heliophysics data environment
Tom Narock, Adam Szabo, Jan Merka
2:30 PM – 3:00 PM: (Oral 20) An Ontology Mapping Approach to Integrating Earth Science Metadata
Richard M. Keller, Rajkumar Thirumalainambi, Joseph C. Coughlan
3:00 PM – 3:30 PM: (Oral 26) Can AI techniques be applied to forest science data integration problems?
3:30 PM – 4:00 PM: Break

4:00 PM - 4:15 PM: Session VII - Continued

4:00 PM – 4:05 PM: (Poster 14 Intro) Coastal Buoy Sensors Data Integration: A Need for Syntactic and Semantic Standardization
Surya S. Durbha, Roger L. King, and Nicolas H. Younan

4:05 PM – 4:10 PM: (Poster 24 Intro) Progress for Ontology of Fractures and Faults
Jian Zhong, Atilla Aydin, Deborah McGuinness

4:10 PM – 4:15 PM: (Poster 25 Intro) Semantic Mediation in the National Geologic Map Database (US)
David Percy, Steve Richard, David Soller

4:15 PM - 5:30 PM: Session VIII – Posters (Moderators: Peter Fox and Deborah McGuinness)
A-M (1, 2, 3, 4, 9, 11, 12, 14, 15, 16, 24, 25, 31 - see poster list at end)

5:30 PM: End of second day
5:45 PM – 7:30 PM: Plenary session for session organizers

Friday, March 28

9:00 AM – 12:00 AM: Session IX - Semantic Science Foundations, Medical Applications (Moderator: Deborah McGuinness)

9:00 AM – 9:30 AM (Oral 8) Semantic Science and Machine Accessible Scientific Theories
David Poole, Clinton Smyth, Rita Sharma

9:30 AM – 10:00 AM (Oral 29) Answering Science Questions: Deduction with Answer Extraction and Procedural Attachment
Richard Waldinger and Jeff Shrager

10:00 AM – 10:30 AM: (Oral 21) Semantic Integration of Software Systems in Translational Clinical Trials
Ravi D. Shankar, Martin J. O’Connor, David B. Parrish, Amar K. Das

10:30 AM – 11:00 AM: Break

11:00 AM – 11:30 AM: (Oral 19) Medical Imaging on the Semantic Web: Annotation and Image Markup
Daniel L. Rubin, Pattanasak Mongkolwat, Vladimir Kleper, Kaustubh Supekar, David S. Channin

11:30 AM – 12:00 PM: Panel on Semantic Science and Medical Applications

12:00 PM – 12:30 PM: Session X - Closing Address, Workshop Summary and Journal
12:30 PM: End of symposium

Posters:

Poster 1 (D) Requirements for computer support of quantitative research processes
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