

Second Workshop on Enabling Open Semantic Science



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<https://w3id.org/semsci/>

#semSci2018

Schedule

- **Session 1: Knowledge Graphs in Semantic Science**

- **9:10 – 10:30**

- **Paul Groth.** The Challenge of Deeper Knowledge Graphs for Science



- **Session 2: Reproducibility of Scientific Experiments**

- **11:00 – 12:20**

- **Keynote by Hala Skaf:** From Scientific Workflows to Linked Experiment Reports.



- **Session 3: Disseminating Open Semantic Science**

- **14:00 – 15:20**

- **Round table:** Challenges for communication and dissemination of Open Science



- **Session 4: Provenance and Scientific Experiments**

- **16:00 – 17:20**

- **Keynote by Yolanda Gil:** Thoughtful Artificial Intelligence: Forging a New Partnership for Data Science and Scientific Discovery

Special Issue!

<http://www.semantic-web-journal.net/blog/call-papers-special-issue-semantic-escience-methods-tools-and-applications#>

Special Issue on Semantic eScience: Methods, tools and applications

Theme

In the past few years, a push for open reproducible research has led to a proliferation of community efforts for publicly publishing datasets, software and methods described in scientific publications. These efforts underpin research outcomes much more explicitly accessible. However, the actual time and effort required to achieve this new form of scientific communication remains a key barrier to reproducibility. Furthermore, scientific experiments are becoming increasingly complex, and ensuring that research outcomes become understandable, interpretable, reusable and reproducible is still a challenge. Semantic Web technologies provide a promising means for achieving this goal, enabling more transparent and well-defined descriptions for all scientific objects required for this envisioned form of science and communication.



Important dates: **16 of November 2018**
(May be extended)

Special Issue: Topics

- Tools, methods and use cases/applications for helping linking existing papers to their research products: data, software, methods and execution traces.
- New methods for helping linking scientific papers to other papers (e.g., papers that use similar approaches, similar methods, common software, common data, etc.)
- New methods for helping visualizing and presenting scientific information to scientists (e.g., provenance-based visualizations, summaries, presenting results at different levels of granularity, etc.)
- New approaches for extracting the specific steps used in a method described expressed in a scientific paper.
- New methods for generating automated explanations of scientific results.
- New approaches for comparing methods, protocols and methodologies expressed in scientific papers.
- New methods to highlight the differences between execution runs of a scientific experiment (based on their configuration, performance, results, etc.)
- Tools and methods for discovering data and software used in similar publications or to address similar problems.
- Vocabularies and ontologies that help relate and describe software, data, methods and provenance used in a scientific publication.
- Vocabularies and ontologies that help capturing and presenting experiment information to scientists.
- Automatic annotation of scientific research
- Provenance, quality, privacy and trust of scientific information
- Novel visualizations of scientific data
- Novel approaches to apply Linked Data and Semantic Web techniques to scientific workflows