

Workshops, June 1st

[Workshop 1: 1st International Workshop on the Semantic Sensor Web \(SemSensWeb 2009\)](#)

[Workshop 2: Trust and Privacy on the Social and Semantic Web \(SPOT2009\)](#)

[Workshop 3: 4th Workshop on Semantic Wikis \(SemWiki2009\)](#)

[Workshop 4: Workshop on Inductive Reasoning and Machine Learning on the Semantic Web \(IRMLeS2009\)](#)

[Workshop 5: 4th International Workshop on Semantic Business Process Management \(SBPM2009\)](#)

[Workshop 6: Workshop on Context, Information And Ontologies \(CIAO2009\)](#)

Workshops, May 31st

[Workshop 7: 5th Workshop on Scripting and Development for the Semantic Web \(SFSW2009\)](#)

[Workshop 8: 1st International Workshop on Stream Reasoning \(SR2009\)](#)

1st International Workshop on Stream Reasoning (SR2009) (Half day)

Data streams occur in a variety of modern applications, such as network monitoring, traffic engineering, sensor networks, RFID tags applications, telecom call records, financial applications, Web logs, click-streams. They have been studied since 2000 and today Specialized Stream Database Management Systems exist. While such systems proved to be an optimal solution for on the fly analysis of data streams, such systems suffers from several limitation. They cannot handle heterogeneous data streams originating from a variety of already deployed sensors. They cannot combine data streams with slowly evolving knowledge at query time. They cannot perform reasoning tasks. At the same time, while reasoners are year after year scaling up in the classical, time invariant domain of ontological knowledge; reasoning upon rapidly changing information has been neglected or forgotten. Thus, we are assisting to the rising of a new trend, hereby named "Stream Reasoning" as an unexplored, yet high impact, research area; a new multi-disciplinary approach which will provide the abstractions, foundations, methods, and tools required to give answer to questions concerning reasoning over streaming data, such as: "is a traffic jam going to happen in this highway? And is then convenient to reallocate travelers based upon the forecast?" or "By looking at the clickstream coming from a given IP, can we notice the shifts of interest of the

person behind the computer?" or "Are trends in medical records indicative of any new disease spreading in given parts of the world?"

Starting from lesson learned in the database community, new foundational theories can be developed, rooted into formal disciplines such as logics and optimization theory. From these foundations, new paradigms for knowledge representation languages design and reasoner construction could be derived, and the consequent frameworks for stream reasoning oriented software architectures and their instrumentation could be deployed. The workshop will welcome high-quality position and research papers about the identification of actual trends in how to combine Data Stream and Reasoning. Technologies as well as novel ideas, experiments, and application visions originating from multiple disciplines and viewpoints will be welcome.

Homepage: <http://streamreasoning.org/events/sr2009>