

## **AAI Advanced Analytics Seminar Series on 06/02/2013**

**Seminar Title:** Trace-Based Reasoning: Combining Case-Based Reasoning and Traces to Reason on Experiences

**Speaker:** Amélie Cordier, Associate Professor, University of Lyon 1

**Date and Time:** 1:30pm to 3:00pm, the 6th of February 2013 (Wednesday)

**Seminar Room:** UTS Blackfriars Campus Building 05 CC05.GD.02 (5 minutes walk from the Tower Building CB01 of UTS)

**Seminar Chairman:** Professor Longbing Cao (longbing.cao@uts.edu.au)

**Abstract:** In this presentation, we will talk about the emerging concept of Trace-Based Reasoning. Trace-Based Reasoning is an Artificial Intelligence methodology for solving various problems. The specificity of Trace-Based Reasoning is that it uses traces (i.e. sequential records of events) as a rich knowledge source for the reasoning process. During the talk, we will give an overview of the fundamentals of Case-Based Reasoning, a well-known Artificial Intelligence paradigm from which Trace-Based Reasoning draws inspiration. Next, we will describe the fundamental principles of Trace-Based Reasoning, and we will explain the different steps of the process. Thorough the presentation, we will give examples of applications of Case-Based and Trace-Based Reasoning in various applications domains such as Health Sciences, Educational Software, Video Recommendations, Driver Behaviors, Semantic Web, Motion-Based Interactions, Cooking, etc.

**Short biography of the speaker:** Amélie Cordier is an associate professor at the University of Lyon 1. She does her research at the LIRIS Laboratory. She got her PhD from Lyon 1 University. Her main research field is dynamic knowledge engineering, Case-Based Reasoning and Trace-Based Reasoning. She is involved in several projects in this field. She led the Taaable project in 2008 and 2009. She has organized several conferences, including ICCBR 2012 (International Conference on Case Based Reasoning). She is currently a visiting researcher at the University of Auckland.

**Overview to This Seminar Series:** The Advanced Analytics Seminar Series presents the latest theoretical advancement and empirical experience in a broad range of interdisciplinary and business-oriented analytics fields. It covers topics related to data mining, machine learning, statistics, bioinformatics, behavior informatics, marketing analytics and multimedia analytics. It also provides a platform for the showcase of commercial products in ubiquitous advanced analytics. Speakers are invited from both academia and industry. It opens regularly on every Friday afternoon at the garden-like UTS Blackfriars Campus. You are warmly welcome to attend this seminar series.

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