

AAI Advanced Analytics Seminar Series on 05/07/2013

Seminar Title: Extracting value added information from space time datasets across large areas

Speaker: Dr. Mark Broich, UTS climate change cluster

Date and Time: 1:30pm to 3:00pm, the 5th of July 2013 (Friday)

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

Seminar Chairman: Dr. Suresh Sood (suresh.sood@uts.edu.au)

Abstract: Over 80% of data contain a location component and certain datasets such as remote sensing data are spatially explicit by definition. According to the secretary general of the UN Economic and Social Council (2012), one of the key challenges nowadays is to better integrate geospatial and statistical information as a basis for sound and evidence-based decision making. The common theme is that spatial datasets are large and that we need specific processing and analysis methods to extract key information from data with different spatial-temporal resolution, aggregation and noise levels. I will address the topic of spatial-temporal analysis by presenting my work on developing the first annual forest cover loss map for Indonesia, quantifying inundation dynamics, modelling bush fire threat, and quantifying vegetation dynamics across Australia with applications for yield and fire fuel prediction. I will also discuss spatial statistical modelling and how such models can be used to quantify spatial-temporal phenomena and their drivers.

Short biography of the speaker: Mark is a Post Doc at the UTS climate change cluster. He relocated to Australia from the GIS Centre of Excellence at South Dakota State University (USA) where he earned his PhD in Geospatial Science and Engineering. Prior to joining UTS, Mark worked on a Bush Fire Threat Analysis and inundation dynamics in Western Australia. Mark's background and experience is in quantitative geospatial science using a spatial analysis toolset on different datasets to provide value added and policy relevant information to stakeholders. He currently develops the MODIS phenology product for Australia that will be staged on the Research Data Storage Infrastructure (RDSI) facility as a dataset of national significance characterising inter and intra annual variability of vegetation dynamics.

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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