

Maths DSIG Agenda

13:30 – 16:30 Thursday, 18th June 2015

- 13:00 – 13:30 Update on, 'A Service Oriented Virtual Environment for Complex System Design and Analysis' ¹
Prof Charles Dickerson, Loughborough University
- 13:30 – 14:15 Is There a Substantive Difference between Sequence Diagrams and Activity Models/State Machines for Conceptual Modelling? ²
Dr Stephen Clement, Loughborough University
- 14:15 – 15:00 Break
- 15:00 – 16:00 Metamodel for Optimization Tools: Its Form and Usage³
Peter Denno, NIST
- 16:00 – 16:30 Closing Discussion
- 16:30 Adjourn

¹ This update reports on the progress of the March presentation which was based on the IEEE paper by Loughborough University, the University of Leeds, and Jaguar Land Rover.

² The research presented in the Loughborough/Leeds/JLR IEEE paper illustrated using ROSETTA for virtual design and prototyping. The technical/ mathematical approach raises a question about how best to implement performance and behaviour in relational orientation using object orientation. The point for OMG is how to implement ROSETTA, which is a mathematically based matrix framework, using OMG object oriented standards.

³ Peter's presentation will continue the discussion of optimization languages such as OPL and AMPL. The technical/ mathematical point for OMG is whether there is a standard to be written.

Acronyms

- AMPL This is a modeling tool for the entire optimization modeling lifecycle.
- CPLEX This is one of several solvers for the AMPL tool. See <http://ampl.com/>
- ROSETTA Relational Oriented Systems Engineering Technology Trade-off and Analysis