



Promises and Challenges of Multi-Paradigm Modeling

Speaker: Dr. Hans Vangheluwe, *University of Antwerp*

Date and Time: April 2 (Wednesday), 2014 - 11:00am-12:00pm

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Abstract:

The complexity of (software-intensive) systems we build as well as the demands that are put on quality, safety, and maintainability of these systems has grown drastically over the last decades. To tackle this complexity, Multi-Paradigm Modelling (MPM) treats models, in various formalisms, as first-class artifacts. In an attempt to minimize “accidental complexity,” the most appropriate modelling languages or formalisms are used for each specific (sub-)problem and phase in the development process, at the most appropriate levels of abstraction. Domain-Specific Modelling (DSM) in particular tries to bridge the gap between the problem domain and the technical solution domain. This has led to a proliferation of the number of modelling languages. This talk will introduce MPM concepts and techniques as well as the research challenges these introduce.

Biography:

Dr. Hans Vangheluwe is a professor in the department of Mathematics and Computer Science at the University of Antwerp in Belgium, an adjunct professor in the School of Computer Science at McGill University, Montreal, Canada and an adjunct professor at the National University of Defense Technology in Changsha, China. He works on the foundations of, tools for, and application of Multi-Paradigm Modelling. The automotive domain, with its physical, software and safety aspects, is one of his current areas of interest. He is an Associate Editor of Springer's Software and Systems Modeling journal, of the International Journal of Critical Computer-Based Systems, of Simulation: Transactions of the Society for Computer Simulation, and of the International Journal of Adaptive, Resilient and Autonomic Systems.