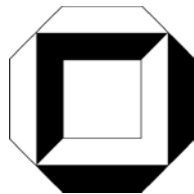


# KOLLOQUIUM

## ANGEWANDTE

## INFORMATIK



Universität Karlsruhe (TH)  
Fakultät für  
Wirtschaftswissenschaften

### Using Equation-Free Macroscopic Analysis for Studying Self-Organising Emergent Solutions

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Belgium

This talk will start with a bird's eye view of DistriNet research in the domain of 'software engineering and multi-agent systems'. In particular, the talk will discuss our perspective of 'multi-agent systems as software architectural tactics' rather than as 'a completely new paradigm for software development', and coordination models (esp. for environment-mediated coordination) for decentralised, self-organising systems. The research is illustrated in an industrial case that is the result from intensive cooperation of DistriNet with a Flemish company Egemin N.V.

Numerous challenges arise in this research field. In the second part of this talk, one such challenge will be discussed. The challenge that is discussed is how to systematically evaluate self-organising emergent (SO-em) solutions. SO-em solutions aim to achieve system objectives via emergent behaviour of self-organizing, cooperating entities. In our paper at SASO'2008 (see <http://portal.acm.org/citation.cfm?id=1475978>), we investigate equation-free analysis as the basis for a disciplined approach for understanding, evaluating and improving SO-em solutions.

Termin: **Freitag 29. Mai 2009, 14.00 Uhr,**  
Kollegiengebäude am Ehrenhof, **R. 231**

Zu diesem Vortrag lädt das

*Institut für Angewandte Informatik  
und Formale Beschreibungsverfahren*

alle Interessierten herzlich ein.

A. Oberweis, H. Schmeck (Org.), D. Seese, W. Stucky, R. Studer, S. Tai