

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE
UNIVERSITY OF SOUTHERN DENMARK, ODENSE

COMPUTER SCIENCE COLLOQUIUM

Building Graphical Choreographies From Communicating Machines: Principles and Applications

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Abstract:

Graphical choreographies, or global graphs, are general multiparty session specifications featuring expressive constructs such as forking, merging, and joining for representing application-level protocols. Global graphs can be directly translated into modelling notations such as BPMN and UML.

In the first part of the talk, I will first present an algorithm whereby a global graph can be constructed from asynchronous interactions represented by communicating finite-state machines (CFSMs); and a sound characterisation of a subset of safe CFSMs from which global graphs can be constructed.

In the second part, I will outline a few recent applications of this work to communicating timed automata and the Go programming language.

Host: Fabrizio Montesi