Department of Computer Science
Research Focus
"Intelligent Formal Systems"

TECHNISCHE UNIVERSITÄT DRESDEN

Colloquium

Within the seminar of the Research Focus, the Ph.D. programme "Specification of discrete processes and systems of processes by operational models and logics" presents a talk by

Dr. Steven Shapiro
Fakultät für Mathematik und Informatik
Universität Leipzig

about

"Belief Change with (Noisy) Sensing and Introspection"

Abstract: We generalize the framework of Shapiro et al. [2000], where belief change due to sensing was combined with belief introspection in the situation calculus. In that framework, sensing was assumed to be infallible and the plausibilities of alternate situations (i.e., possible worlds) were fixed in the initial state, never to be updated. Here, we relax both assumptions. That is, we model noisy sensors whose readings may stray from reality and may return different values in subsequent readings. We also allow the plausibilities of situations to change over time, bringing the framework more in line with traditional models of belief change. We give some properties of our axiomatization and show that it does not suffer from the problems with combining sensing, introspection, and plausibility update described in Shapiro et al.

Date:	03.05.2005
Place and time:	Willersbau, Room: WIL C129, 1.15 pm

All interested persons are invited to attend!

Prof. Dr.-Ing. habil. Heiko Vogler