Kolloquium Angewandte Informatik

Coalition-Flow Networks: Generalised Network Flows for Coalition Games

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In this talk we detail a Generalised Network Flow representation for Coalition Games, CF-NETs Specifically, this representation is based on the observation that the coalition formation process can be viewed as the problem of directing the flow through a network where every edge has certain capacity constraints. We show that our new way of representing this process is intuitive, fully expressive, and allows for representing certain patterns in a significantly more concise manner compared to the conventional approach. Furthermore, we show that CF-NETs have the capability to represent different classes of games, namely characteristic function games, coalitional games with overlapping coalitions, and coalitional games with identical agents.

Biography:
Madalina Croitoru is Associate Professor at University of Montpellier II. She is part of the Graphik research team at INRIA. Her research interests are focused around graph based knowledge representation with applications in different AI domains (from KRR for the Semantic Web to knowledge representation in multi agent systems or natural language processing). More details about her research can be found at www.lirmm.fr/~croitoru. In this talk she takes a representation problem for coalition formation in multi agent systems and shows how a graph based representation equipped with appropriate reasoning mechanisms can improve the expressiveness and efficiency of state of the art approaches.

Termin:	Freitag, 19. November 2010, 14:00 Uhr
Ort:	Englerstraße 11, 76131 Karlsruhe Kollegiengebäude am Ehrenhof (Geb. 11.40), 2. OG, Raum 231 (Hinweise für Besucher: www.aifb.uni-karlsruhe.de/Allgemeines/Besucher)
Veranstalter:	Institut AIFB, Forschungsgruppe Wissensmanagement

Zu diesem Vortrag lädt das Institut für Angewandte Informatik und Formale Beschreibungsverfahren alle Interessierten herzlich ein.

Andreas Oberweis, Hartmut Schmeck, Detlef Seese, Wolffried Stucky, Rudi Studer (Org.), Stefan Tai