informatik-Kolloquium

Der Fachbereich Informatik der Johannes Kepler Universität Linz[1] lädt in Zusammenarbeit mit der Österreichischen Gesellschaft für Informatik (ÖGI) zu folgendem Vortrag ein:

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A Geometrically Enhanced Conceptual Model and Query Language

Mi, 14. 12. 2011, 15.30 Uhr
Johannes Kepler Universität Linz, K 224B

Abstract:

Motivated by our experiences with spatial modelling for the sustainable land use initiative we present a geometrically enhanced ER model (GERM), which preserves the key principles of entity-relationship modelling and at the same time introduces bulk constructors and geometric features. The model distinguishes between a syntactic level of types and an explicit internal level, in which types give rise to polyhedra that are defined by algebraic varieties. Together with GERM we present a query language (GERM_SQL) on the conceptual level with means for describing and composing geometric data that are compatible with the dual representation of geometric data on the surface and the internal level. Further, it emphasises the stability of algebraic operations by means of a natural modelling algebra that extends the usual Boolean operations on point sets.

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[1] Der Fachbereich (http://informatik.jku.at) besteht aus folgenden Instituten:
Anwendungsorientierte Wissensverarbeitung (FAW), Bioinformatik, Computational Perception, Computergrafik, Computer-Architektur, Formale Modelle und Verifikation, Informationsverarbeitung und Mikroprozessortechnik (FIM), Integrierte Schaltungen, „integriert studieren", Pervasive Computing, Systemsoftware, Systems Engineering und Automation, Telekooperation

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Biography:

Hui Ma is a Senior Lecturer at the School of Engineering and Computer Science at Victoria University of Wellington in New Zealand. She received a Bachelor in Civil Engineering from Tongji University in P. R. China, a Master of Information Sciences (with First Class Honours), and a Ph. D in Information Systems from Massey University in New Zealand. She was an Assistant Lecturer at the Department of Information Systems at Massey University and an Environmental Information Analyst at Horizons Regional Council before she joined Victoria University of Wellington in 2008. She was also a member of the Information Science Research Centre at Massey University from 2003 to 2007 and a member of Elvis Software Engineering research group at School of Engineering and Computer Science at Victoria University of Wellington since 2008. Her major research interests are distributed databases, conceptual modelling, service-oriented systems, and geographical information systems.

Hon.-Prof. Dr. Klaus-Dieter Schewe
Institut für anwendungsorientierte Wissensverarbeitung (FAW)

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