

 **informatik-Kolloquium**

Der Fachbereich Informatik der Johannes Kepler Universität Linz¹ lädt in Zusammenarbeit mit der Österreichischen Gesellschaft für Informatik (ÖGI) zu folgendem Vortrag ein:

Christoph Kirsch
University of Salzburg

From Multicore-Scalable Data Structures to Multicore-Scalable Memory Management

Thursday, March 19, 5:15 pm

JKU, S3-055 in Science Park 3

Abstract:

We review a variety of concurrent data structures, designed by us and others, and analyze their performance and scalability on recent multicore servers. We then show how to use some of the best-performing and most-scalable data structures in the design and implementation of a new memory allocator that outperforms and outscapes existing allocators while using less memory.

This is joint work with Martin Aigner, Andreas Haas, Michael Lippautz, and Ana Sokolova.)

Short Bio: Christoph Kirsch is Professor at the Department of Computer Sciences of the University of Salzburg, Austria. He received his Dr.Ing. degree from Saarland University, Saarbrücken, Germany, in 1999 while at the Max Planck Institute for Computer Science. From 1999 to 2004 he worked as Postdoctoral Researcher at the Department of Electrical Engineering and Computer Sciences of the University of California, Berkeley. He later returned to Berkeley as Visiting Scholar (2008-2013) and Visiting Professor (2014) at the Department of Civil and Environmental

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Anwendungsorientierte Wissensverarbeitung (FAW), Bioinformatik, Computational Perception, Computer-Architektur, Computergrafik, Formale Modelle und Verifikation, Informationsverarbeitung und Mikroprozessortechnik (FIM), Integrierte Schaltungen, Pervasive Computing, Systems Engineering and Automation, Systemsoftware, Telekooperation

Engineering as part of a collaborative research effort in Cyber-Physical Systems. His most recent research interests are in concurrent data structures, memory management, and so-called spatial programming. Dr. Kirsch co-invented embedded programming languages and systems such as Giotto, HTL, and the Embedded Machine, and more recently co-designed high-performance, multicore-scalable concurrent data structures and memory management systems. He co-founded the International Conference on Embedded Software (EMSOFT), served as ACM SIGBED chair from 2011 until 2013, and is currently ACM TODAES associate editor.

*Univ.-Prof. Dr. Volker Strumpfen
Institute for Computer Architecture*

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