

## Josef Weidendorfer



Josef Weidendorfer got his diploma in computer science 1997 from the Technische Universität München. After a 3-year grant from BMW about parallelization issues in crash simulation software, he worked as research assistant at the chair of Prof. Bode at Technische Universität München, where he got his PhD in 2003. Since then, he is working as assistant professor, giving lectures about computer architecture and virtualization. His research interests are in parallel computer architectures, performance analysis, and optimization. He is author & maintainer of the open source program KCachegrind, a performance analysis visualization, as well as the Callgrind tool part of Valgrind ([www.valgrind.org](http://www.valgrind.org)).

Current work focusses on tools for performance analysis and optimization for multicore architectures, strategies for how to exploit the added benefits, and how to relax the added constraints. This involves not only in-program code adaptations, but also enhancements for execution environments such as automatic finding of optimal thread-core bindings.

### References:

J. Weidendorfer, C. Trinitis: Off-loading Application controlled Data Prefetching in numerical Codes for Multi-Core Processors. International Journal on High Performance Computing and Networking (to appear)

M. Ott, T. Klug, J. Weidendorfer and C. Trinitis, Autopin - Automated Optimization of Thread-to-Core Pinning on Multicore Systems, First Workshop on Programmability Issues for Multi-Core Computers (MULTIPROG). Gothenburg, Sweden, January 27, 2008.

### Would like to discuss:

- Are there other participants working in the same area of research (best exploitation of multicore architectures), experiences on performance issues with these architectures
- Best ways to start/improve international cooperations, available fundings

### Topics for future collaborations:

- Depends on interests of other participants, own near-term research interests are Performance-Models for multicore architectures, simulations, developer-focussed tools for performance analysis