



# International Working Group

## Software Engineering for Parallel Systems (SEPARS)

... join us!

<http://www.multicore-systems.org/separs>

### Motivation

As processor clock rates are stagnating, future performance increases will have to come from parallelism. Multicore processors integrate several CPUs on a single chip and are available for everyone at low cost. For the near future, hundreds of cores are predicted to be on a single chip. Parallel computing is leaving the supercomputing niche and becomes ubiquitous in everyday life. This new situation has a fundamental impact on software development, research, teaching, and industry.

An increasing number of software engineers will be confronted with parallelism; robust approaches and tools are needed for the development of general-purpose parallel software.

### Goals

Our working group focuses on software engineering methods for general-purpose parallel software on multicore systems. We aim to advance the field in research and practice, make existing approaches accessible and suitable for daily use, develop new concepts and methods, and find new application areas for parallelism.

We have an internationally growing community of researchers and practitioners; it is an excellent platform to get connected and exchange ideas.

### Topics

Topics of interest include, but are not limited to

- Industrial-strength development methods for general-purpose parallel software
- Specification, design, analysis, debugging of general-purpose parallel software
- Languages and programming models for multicore/manycore computers
- Tools for modeling, verification, performance analysis of parallel programs
- Transformation of sequential programs to parallel programs
- Patterns, frameworks, libraries for non-numerical parallel programs
- Architectures for general-purpose parallel programs
- Middleware, virtualization for multicore/manycore systems
- Parallel software development for embedded systems / systems on a chip
- Parallelism in databases
- Development environments for multicore/ manycore systems

# How to join

The working group is part of the German Computer Science Society (Gesellschaft für Informatik e.V.); participation is free of charge and open to everyone. Please register here:

**<http://www.multicore-systems.org/separs>**

Participate in the meetings to help advance the field of software engineering for parallel systems. We welcome contributions such as presentations, experience reports, discussions. Our newsletter will keep you informed about activities, results, and future events.

## The steering committee welcomes you!



Walter F. Tichy, Sebastian Hack, Victor Pankratius (chairman), Christian Lengauer