Automatic Online Tuning

Goals
- Combine analysis and tuning in the Periscope Tuning Framework
- Tune codes to improve performance and energy efficiency
- Support multicore and GPU accelerated parallel systems

Approach
- Predefined tuning strategies combine performance analysis and tuning plugins
- Detected performance and energy characteristics are forwarded to plugins
- Tuning plugins focus on
  - Compiler based optimization
  - HMPP tuning for GPUs
  - Parallel pattern tuning
  - MPI tuning
  - Energy efficiency tuning

Partners
- Technische Universität München
- Leibniz Supercomputing Center
- CAPS entreprise
- Universitat Autònoma de Barcelona
- University of Galway, ICHEC
- Universität Wien
- IBM (associated partner)

Funding by European Union
FP7 project no. 288038
Duration: 2011-2014
Contact: Michael Gerndt <gerndt@in.tum.de>