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
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• Universität Wien
• IBM (associated partner)

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