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## CERN openlab Training Course: Programming and Environments for Parallelism <sup>[1]</sup>

### **Date:**

Tuesday, 3 November, 2015 - 09:00 to Friday, 6 November, 2015 - 17:30

The parallelism course dives into a wide range of parallel programming techniques, whether data- or task-parallel. The training course will start with an overview of patterns, look at trade-offs, pitfalls and available parallel programming environments ? with a particular focus on OpenMP4, Threading Building Blocks and Cilk. The last day is an advanced class devoted to fine-tuning and balancing parallel programs using modern frameworks, runtimes and APIs. Hands-on labs are included. Topics tackled are:

- Software technologies and constructs for advanced parallelization
- Parallel programming patterns
- Evaluating tradeoffs
- Lockless algorithms, avoiding parallelism pitfalls and traps
- Advanced technologies: getting most out of OpenMP4, Cilk, TBB.
- Special control options, finetuning, balancing.
- Choosing the appropriate technology out of a portfolio of over 20.

### **Indico or other event webpage:**

[For more information](#) <sup>[2]</sup>

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**Links**

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