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CERN openlab is continuing activities on the teaching front



This season has seen two instances of technical workshops organized by CERN openlab. On November 11th and 12th a fourth edition of the successful Multi-Threading and Parallelism Workshop was held. The 25 participants were taught by a visiting compiler expert from Intel, Jeff Arnold, as well as two openlab staff: Sverre Jarpe and Andrzej Nowak. Sverre described the changes in the computing landscape and highlighted the need for parallelism in modern software, as well as introduced the participants to the world of parallel programming. Jeff explained

how Intel-related technologies work in the parallel domain, most notably the open source Threading Building Blocks (TBB), but also Intel Threading Tools. Andrzej dove a little bit deeper into parallel programming paradigms and described the implications of some new exciting technologies ahead of us, such as Hyper Threading, Intel AVX and Intel Ct. There were also two half-day long hands-on labs, where the attendees could familiarize themselves with all discussed technologies, and see how they perform in practice – be it POSIX threads, OpenMP or TBB.

CERN openlab has also expanded its teaching portfolio by another class, also destined to be held in regular 5-6-month intervals. Tried and tested at the CERN School of Computing 2008 and earlier at CERN, the first official edition of the Computer Architecture and Performance Tuning Workshop gathered about 20 participants, both from CERN and from external collaborating laboratories. Two openlab staff, Sverre Jarpe and Andrzej Nowak, explained to the attendees the most crucial aspects of modern computer architecture, and gave general advice relating to performance monitoring and tuning. A half-day of hands-on labs was held, where perfmon2, the tool bound to become the standard performance monitoring interface in the Linux kernel, was used to demonstrate monitoring and optimization techniques.

More workshops of both kinds will be organized in Spring 2009.

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