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## **The openlab platform competence centre team just published a new report on a hybrid OpenMP and MPI parallelization support** <sup>[1]</sup>

Wednesday, 18 July, 2012

The High Energy Physics (HEP) community makes large use of many complex data analysis techniques. These techniques are employed to improve the discrimination between events and to identify the most interesting ones -with respect to the total events collected by the physics detectors- in order to discover possible new physics phenomena. The increase of the sample sizes and the use of complex data analysis models require high CPU performance for the execution of the data analysis software applications. The execution can be speeded up by having recourse to parallel implementations of the data analysis algorithms.

The [platform competence centre team](#) <sup>[2]</sup>, which partners with [Intel](#) <sup>[3]</sup>, just published [a report](#) <sup>[4]</sup> describing the development of a hybrid [OpenMP](#) <sup>[5]</sup> and [MPI](#) <sup>[6]</sup> parallelization support of a maximum likelihood fit application, developed at CERN openlab and used as a representative of data analysis applications used in the HEP community. The report includes the results of scalability runs obtained with several configurations and systems. The [report](#) <sup>[4]</sup> is available to you in the publications section of the website.

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- [5] <http://en.wikipedia.org/wiki/OpenMP>
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