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## CERN openlab Mini-Workshop on Floating-Point Computation <sup>[1]</sup>

**Date:**

Thursday, 7 April, 2016 - 09:00 to 18:00

**Location:**

[CERN](#) <sup>[2]</sup>

CERN openlab is pleased to announce a mini-workshop on floating-point computation and arithmetic to be offered at CERN on 7 April 2016. The workshop will be run by **Jeff Arnold**, former Intel staff software engineer and a long-standing collaborator with CERN openlab's. The target audience for this workshop is those who wish to gain a basic understanding of the fundamentals of floating-point arithmetic and computations. While extensive knowledge of floating-point arithmetic is not assumed, experience with scientific programming in C, C++ or Fortran is required.

The topics to be covered include:

- Basics of floating-point arithmetic on x64 architecture
- IEEE Standard for Floating-Point Arithmetic (IEEE 754-2008)
- Properties of floating-point arithmetic
- Error-Free Transformations and their uses
- Pitfalls in floating-point computations
- Impact of compilers and math libraries

The workshop will include hands-on exercises. Attendees are expected to have access to CERN computing facilities and to bring their own laptop to the workshop.

**Indico or other event webpage:**

[For more information about the event](#) <sup>[3]</sup>

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