Debugging and Optimization of Scientific Applications

13th-15th March 2023

Modalità: in presenza
Lingua: Italiano

Agenda del corso

13 Marzo

9.15-9.30   Presentations

9.30-10.20   Introduction to HPC (Emerson, 50 min)

10.20-10.50 CINECA HPC environment (Molinari, 30 m)

10.50-11.10 Break (20 m)

11.10-12.00 Compilers & Optimization (Emerson, 50 m)

12.00-12.50 Hands-on (50 m)

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14.30-15.20 Compilers & Optimization (Emerson, 50 m)

15.20-15.40 Break (20 m)

15.40- 16.20 Compilers & Optimization (Emerson, 40 m)

16.20-17.30 Hands-on (70 m)

14 Marzo

9.30-10.20 Performance modeling and roofline model (Affinito, 50 m)

10.20-10.50 LIKWID (Affinito, 30 m)

10.50-11.10 Break (20 m)

11.10-12.00 Hands-on (50 m)

 12.00-12.50 Debugging techniques (Latini, 50 m)

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14.30-15.10 Debugging techniques (Latini, 40 m)

15.10-15.30 Break (20 m)

15.30-16.20 Hands-on on TotalView (50 m)

16.20-16.40 Break (20 m)

16.40-17.30 Debugging CUDA - demo (Orlandini, 50 m)

15 Marzo

9.30-10.20 Introduction to performance profiling (Bellentani, 50 m)

10.20-10.50 Profiling tools for MPI and OpenMP (Bellentani, 30 m)

10.50-11.10 Break (20 m)

11.10-12.00 Profiling GPU offload - NSight Systems for OpenACC and CUDA (Bellentani, 50 m)

 12.00-12.30 Open-source tools (Bellentani, 30 m)

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14.00-17.30 Lab – Profile your own code or an example (Bellentani, Gorni)