

HPC Numerical Libraries

AGENDA

26 April:

- 09:00-09:30 Registration and welcome!
- 09:30-10:15 Introduction to HPC Numerical libraries on CINECA (Spallanzani)
- 10:15-11:00 PETSc libraries 1 (Bnà)
- 11:00-11:15 Coffee Break
- 11:15-12:00 PETSc libraries 2 (Bnà)
- 12:00-13:00 Adaptive Mesh Refinement: Numerical (Guarrasi)
- 13:00-14:30 Lunch
- 14:30-16:30 Exercises on PETSc libraries (Bnà)
- 16:30-16:45 Coffee Break
- 16:45-18:00 Tutorial on AMR (Guarrasi)

27 April:

- 09:30-10:30 Random Number Generator libraries (Guarrasi)
- 10:30-11:30 Linear Algebra libraries (Spallanzani)
- 11:30-11:45 Coffee Break
- 11:45-13:00 Exercises on BLAS and LAPACK libraries (Spallanzani)
- 13:00-14:30 Lunch
- 14:30-16:30 Scalable Linear Algebra libraries (ScaLAPACK) (Spallanzani)
- 16:30-16:45 Coffee Break
- 16:45-18:00 Exercises on ScaLAPACK libraries (Spallanzani)

28 April:

- 09:30-11:00 Fast Fourier Transform libraries 1 (FFTW) (Guarrasi)
- 11:00-11:15 Coffee Break
- 11:15-13:00 Fast Fourier Transform libraries 2 (FFTW + 2Decomp&FFT) (Guarrasi)
- 13:00-14:30 Lunch
- 14:30-15:45 Exercises on FFT libraries (Guarrasi)
- 15:45-16:00 Coffee Break
- 16:00-18:00 Scientific Libraries at work: a look inside a condensed matter code