High Performance Bioinformatics

10-12 december 2018
CINECA - Roma
Sala Corsi, Via dei Tizii 6B, Roma

Docenti
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AGENDA

10 december

09:15	Registration
09:30 - 10:00	Student kick-off
10:00 - 11:00	Bioinformatics: Big data challenges through HPC (Castrignanò)
11:00 - 12:00	Introduction to Cineca Supercomputing Hardware Architectures and Software Environment (Spallanzani)
12:00 - 13:00	Introduction to Cineca Supercomputing and bioinformatics module environment (Software) (Gioiosa)
13:00 - 14:00	Lunch
14:00 - 17:00	Hands-on session on bioinformatics data analysis through Linux and scripting commands (Flati)

11 december

09:30 - 11:30	Introduction to NGS bioinformatics (Gioiosa)
11:30 - 13:00	Workflow implementation (Castrignanò-Flati)
13:00 - 14:00	Lunch
14:00 - 17:00	Hands-on session on automation of bioinformatic pipelines (Castrignanò-Flati)

12 december

09:30 - 10:30	Introduction to parallel computing through MPI (Spallanzani)
10:30 - 13:00	MPI4py: speeding up bioinformatics analysis with MPI & Python (Spallanzani-Flati)
13:00 - 14:00	Lunch
14:00 - 17:00	Hands-on session on parallel computing with MPI: design and development of a parallel MPI-based aligner on big datasets (Flati)