

CINECA Summer HPC School for Heterogeneous Computing

VIA MAGNANELLI 6/3 40033 CASALECCHIO DI RENO, BO, ITALY

June 30th - July 11th 2025

Agenda: June 30th - July 4th

Schedule	Monday	Tuesday	Wednesday	Thursday	Friday
9:00-9:15	Welcome Address	Welcome Address	Welcome Address	Welcome Address	Welcome Address
9:15-10:30	Intro HPC Andrew Emerson	MPI Alessandro Marani, Orlenys Natali Troconis	OpenMPM Alessandro Romeo, Nitin Shukla	Intron GPU Nitin Shukla	Intron OpenACC Nitin Shukla, Laura Bellentani
10:30-11:00	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
11:00 - 12.30	Using HPC system Alessandro Marani Tomasso Gorni	MPI continue	OpenMP continue	CUDA Nitin Shukla, Alessandro Romeo	OpenACC Nitin Shukla, Laura Bellentani
12.30-14.00	Lunch break	Lunch break	Lunch break	Lunch break	Profiling Techniques Laura Bellentani Tomasso Gorni
14.00-15.30	Introduction to Git Michael Redenti	MPI continue	OpenMP continue	CUDA continue	
15.30-16.00	Coffee break	Coffee break	Coffee break	Coffee break	
16.00-17.30	Optimization Andrew Emerson Tomasso Gorni	MPI continue	OpenMP continue	CUDA continue	

Agenda: July 7th - July 11th

Schedule	Monday	Tuesday	Wednesday	Thursday	Friday
9:00-9:15	Advanced OpenACC Laura Bellentani Nitin Shukla	SYCL Alberto Guarnieri Filippo Barbari	Session 2: Apply AI in Simulation & Systems Guest lecture	Intro ML Matteo Angelinelli, Michael Redenti	Project Closing
9:15-10:30					
10:30-11:00					
11:00 - 12.30					
12.30-14.00	Lunch break				
14.00-15.30	SYCL Alberto Guarnieri Filippo Barbari	Session 1: Build & Scale AI (Matlab) Guest lecture	Leonardo visit	Parallelization technicques to train large scale AI models Domitilla Brandoni, Laura Cavalli	
15.30-16.00					
16.00-17.30					