CINECA Summer HPC School for HPC+AI workload

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

June 29th - July 10th 2026

Agenda: June 29th - July 3rd

Schedule	Monday	Tuesday	Wednesday	Thursday	Friday
9:15 - 10:30	**Intro HPC** Andrew Emerson	**MPI** Marani	**OpenMP** Romeo	**Intro GPU** Nitin Shukla	**Profiling Techniques** Bellentani
10:30 - 11:00			**Coffee Break**		
11:00 - 12:30	**HPC Systems** Marani	**MPI Continue**	**OpenMP Continue**	**CUDA**	**Introduction to OpenACC** Bellentani
12:30 - 14:00			**Lunch Break**		
14:00 - 15:30	**CMAKE** Mandana Safari	**MPI Continue**	**OpenMP Continue**	**CUDA Continue**	**Advanced OpenACC** Bellentani
15:30 - 16:00			**Coffee Break**		
16:00 - 17:30	**Introduction to GIT** Michael	**MPI Continue**	**OpenMP Continue**	**CUDA Continue**	**Advanced OpenACC**

Agenda: July 6th - July 10th

Daily schedule includes expert-led lectures (9:00-12:30) and hands-on workshops (14:00-17:30).

Schedule	Monday	Tuesday	Wednesday	Thursday	Friday
9:00 - 12:30	**SYCL** Alberto Guarnieri, Filippo Barbari	**Introduction to containers** Leonardo	**AI workload** Domitilla	**Project closing**	**Presentation** **Closing**
12:30 - 14:00	*Lunch Break*				
14:00 - 17:30	**SYCL** Alberto Guarnieri, Filippo Barbari	**AI workload** Domitilla	**AI work load** **Social Dinner**	**Project closing**	

Code of Conduct

The CINECA Summer School is committed to providing a harassment-free, inclusive, and professional learning environment for everyone, regardless of background or identity.

- Active respect for diverse backgrounds and perspectives
- Zero tolerance for discrimination, intimidation, or harassment
- Professional and constructive communication at all times
- Prompt reporting of any concerns to organisers

Community Standards

All participants must adhere to CINECA's institutional guidelines and professional conduct expectations to ensure a productive environment for all.

Collaborative Spirit

We foster an environment where everyone can learn and contribute freely, encouraging the exchange of ideas across different research disciplines.

Summary & Expected Outcomes

Technical Mastery

Comprehensive understanding of heterogeneous computing principles, architectures, and programming models for cutting-edge HPC applications.

Professional Network

Valuable connections with leading researchers and industry practitioners, forming a lasting community of practice in advanced computing.

Career Advancement

Enhanced employability in high-demand fields like AI, climate modelling, biomedical computing, and industrial optimisation.

Practical Experience

Hands-on skills with world-class systems and software tools that translate directly to research and industrial computing challenges.

Participants will receive an official certificate of completion from CINECA, recognised across academic and industrial institutions.

80% attendance is required