

# CINECA Summer School on Parallel Computing (Draft)

3<sup>rd</sup>-14<sup>h</sup> July 2023

	<b>Monday-3</b>	<b>Tuesday-4</b>	<b>Wednesday-5</b>	<b>Thursday-6</b>	<b>Friday-7</b>
<b>9.30</b> <b>10.30</b>	Registration Introduction to HPC – 1 (AE)	MPI (LQ, AM)	MPI (AM, AE)	OpenMP (AC, AR)	Git (SB, LC)
<b>Break</b>					
<b>11.00</b> <b>12.30</b>	Introduction to HPC - 2	Hands On (DB, OT)	Hands On	Hands-on	Hands-on
<b>Lunch (1h.30)</b>					
<b>14.00</b> <b>15.30</b>	CINECA HPC Programming Environment (DB)	MPI (LQ, AM)	MPI (AE, AM)	OpenMP (AC, AR)	Code Optimization (AE)
<b>Break</b>					
<b>16.00</b> <b>17.30</b>	Hands-on	Hands-on (OT, DB)	Hands-on	Hands-on	

	<b>Monday-10</b>	<b>Tuesday-11</b>	<b>Wednesday-12</b>	<b>Thursday-13</b>	<b>Friday-14</b>
<b>9.30</b> <b>10.30</b>	Programming GPUs with CUDA (NS, AC)	Programming with GPUs directives	SYCL programming (AC, AMs)	Profiling and Performance Tuning (LB)	Quantum Computing (RM)
<b>Break</b>					
<b>11.00</b> <b>12.30</b>	Hands-on	Hands-on	Hands-on		QC (cont)
<b>Lunch (1h 30)</b>					
<b>14.00</b> <b>15.30</b>	Programming GPUs (CUDA)	Programming with GPUs directives	Containerization in HPC (GM)	Profiling and performance tuning	FREE
<b>Break</b>					
<b>16.00</b> <b>17.30</b>	Hands-on	Hands- on	Hands-on	Hands-on	FREE

Teachers: AE=Andrew Emerson, LQ=Lara Querciagrossa, AM=Alessandro Marani, AC=Alessandro Casalino, AMs=Alessandro Masini, LB=Lara Bellentani, RM=Riccardo Mengoni, GB=Gabriella

Bettone, AR = Alessandro Romeo, SB= Simone Bna', DB = Daniele di Bari , LC=Luigi Calori, OT  
=Orlenys Natali Troconis

The agenda will also include guided visits to the Computer Room at the CINECA Casalecchio di  
Reno site.