



**CSCS**

Centro Svizzero di Calcolo Scientifico  
Swiss National Supercomputing Centre

Università  
della  
Svizzera  
italiana

# Summer School 2020

## Effective High-Performance Computing & Data Analytics with GPUs

July 13 - 24, 2020

Steger Center, Riva San Vitale, Ticino, Switzerland

The **Swiss National Supercomputing Centre** and **Università della Svizzera italiana** are pleased to announce that the annual Summer School will be held **from July 13 to July 24, 2020** at the Steger Center in Riva San Vitale, located in the Italian speaking area of Switzerland.

This summer school will focus on the effective exploitation of state-of-the-art hybrid High-Performance Computing (HPC) systems with a special focus on Data Analytics.

The following topics will be covered:

- GPU architecture
- GPU programming (CUDA and OpenACC)
- Performance optimization and scientific libraries
- Interactive supercomputing (JupyterLab)
- Python HPC libraries (Numpy/SciPy/Dask/Numba/CuPy)
- Introduction to Machine Learning and GPU optimized frameworks (Rapids)
- Deep Learning on HPC platforms (TensorFlow)

Students will be able to earn **six ECT credit points** for this course from Università della Svizzera italiana (subject to exam).

The content of the course is tailored for **3<sup>rd</sup> year Bachelor's students, Master's students, Ph.D students**, and **early stage Postdocs** interested in learning parallel programming models and having hands-on experience using HPC systems.

For additional information, application and fees: [www.cscs.ch/events](http://www.cscs.ch/events)

Deadline for application: **Sunday, April 19, 2020**

