



# PRACE Course: HPC Code Optimisation Workshop

LRZ | 2 – 4 November 2021



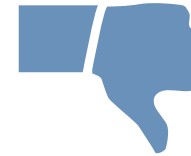
# Survey



- Please fill out the online survey under



<https://tinyurl.com/survey-hcow1w21>



- This helps us to
  - increase the quality of the courses,
  - design the future training programme at LRZ and in Europe according to your needs and wishes,
  - get future funding for training events.



# PRACE Training



LRZ as part of the Gauss Centre for Supercomputing (GCS) belongs to the 14 **PRACE Training Centres** that started in 2012-2017-2020:

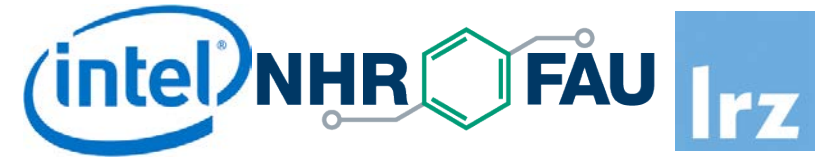
- Barcelona Supercomputing Center (Spain)
- CINECA Consorzio Interuniversitario (Italy)
- CSC – IT Center for Science Ltd (Finland)
- EPCC at the University of Edinburgh (UK)
- Gauss Centre for Supercomputing (Germany)
- Maison de la Simulation (France)
- GRNET – Greek Research and Technology Network (Greece)
- ICHEC – Irish Centre for High-End Computing (Ireland)
- IT4I – National Supercomputing Center VSB Technical University of Ostrava (Czech Republic)
- SURFsara (The Netherlands)
- TU Wien – VSC Research Center (Austria)
- University ANTWERPEN – VSC & CÉCI (Belgium)
- University of Ljubljana – HPC Center Slovenia (Slovenia)
- Swedish National Infrastructure for Computing (SNIC) (Sweden)



**Mission:** Serve as **European hubs and key drivers of advanced high-quality training** for researchers working in the computational sciences.

<http://www.training.prace-ri.eu/>

# NVIDIA DLI Workshops @ LRZ



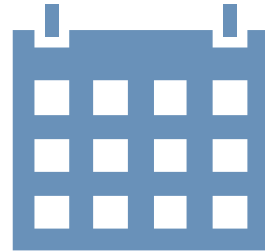
- The **NVIDIA Deep Learning Institute (DLI) @ LRZ** offers hands-on training for developers, data scientists, and researchers looking to solve challenging problems with deep learning.
- Topics:
  - **Fundamentals of Deep Learning**
  - **Building Transformer-Based Natural Language Processing Applications**
  - **Fundamentals of Deep Learning for Multi-GPUs**
  - **Fundamentals of Accelerated Computing with CUDA C/C++**
  - **Accelerating CUDA C++ Applications with Multiple GPUs**
  - **Fundamentals of Accelerated Computing with OpenACC**
- NVIDIA Certified **University Ambassadors @ LRZ**:
  - Dr. Momme Allalen, Dr. Juan Durillo Barrionuevo, Dr. Volker Weinberg
- NVIDIA Certified University Ambassador @ IT4Innovations: Georg Zitzlsberger

# Upcoming Courses and Workshops



Modern C++ Software Design	17.11.2021 – 19.11.2021	ONLINE	30.00 € – 600.00 €	34	⊘	
Introduction to LRZ HPC Systems with Focus on CFD Workflows	17.11.2021 – 17.11.2021	ONLINE	0.00 €	52	✔	<a href="#">Register now</a>
Advanced Fortran Topics (register via PRACE)	23.11.2021 – 26.11.2021	ONLINE	0.00 €	65	⊘	
Accelerating CUDA C++ Applications with Multiple GPUs	30.11.2021 – 30.11.2021	ONLINE	0.00 €	30	✔	<a href="#">Register now</a>
Node-Level Performance Engineering (register via PRACE)	01.12.2021 – 03.12.2021	ONLINE	0.00 €	65	⊘	
Molecular Modeling with Schrödinger-Suite	06.12.2021 – 07.12.2021	ONLINE	0.00 €	121	⊙	<a href="#">Register now</a>
Introduction to LRZ HPC Systems with Focus on CFD Workflows	19.01.2022 – 19.01.2022	ONLINE	0.00 €	64	⊙	<a href="#">Register now</a>
AI for Science Bootcamp	01.02.2022 – 02.02.2022	ONLINE	0.00 €	60	⊘	
OpenMP Programming Workshop (register via PRACE)	08.02.2022 – 10.02.2022	ONLINE	0.00 €	65	⊘	
Parallel Programming of High Performance Systems	08.03.2022 – 10.03.2022	ONLINE or RRZE (tbd)	0.00 € – 600.00 €	36	⊘	
N-Ways to GPU Programming Bootcamp	14.03.2022 – 15.03.2022	ONLINE	0.00 €	60	⊘	

# Upcoming Courses and Workshops



- **Information on further HPC courses:**

- by the Partnership for Advanced Computing in Europe (PRACE): <http://www.training.prace-ri.eu/>
- by LRZ: <http://www.lrz.de/services/compute/courses/>
- by the Gauss Centre of Supercomputing (GCS): <http://www.gauss-centre.eu/training>
- by German Centres (collected by the Gauß-Allianz): <https://hpc-calendar.gauss-allianz.de/>

# Mailing Lists



- Subscribe via <https://lists.lrz.de/mailman/listinfo/aktuell> to get regular information on events, courses, workshops, positions etc. at LRZ.
- Subscribe via <https://prace-ri.eu/subscribe-to-prace-mailing-lists/> to the PRACE training mailing list, to get regular information on PRACE training.



**Thank you!**

**We hope to see you again in a future training event!**