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PRACE Workshop: Deep Learning and GPU Programming Workshop

16 – 19 May 2022

Deep Learning Week



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- **Date:** 25. – 29.07.2022
- **Location:** Online
- **Agenda:**
 - 1st day: Fundamentals of Deep Learning
 - 2nd day: Fundamentals of Deep Learning for Multi-GPUs
 - 3rd and 4th day: Fundamentals of machine learning for working with texts and Building Transformer-Based Natural Language Processing Applications
 - 5th day: Deep Learning on LRZ Systems
- **Lecturer:** PD Dr. Juan Durillo Barrionuevo (LRZ, NVIDIA certified University Ambassador)
- Special Registration Link (only for participants of this course):
 - <https://tinyurl.com/lrz-dlweek>

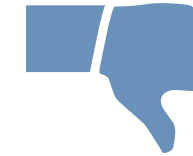
PRACE Survey



- Please fill out the PRACE online survey under



<https://tinyurl.com/survey-dli-lrz>



- This helps us and PRACE 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.

Certificate



- A digital certificate for the whole workshop will be send to you next week if you have attended at least 1.5 days of the course.

What's next?



- Visit the NVIDIA Deep Learning Institute's website at <https://www.nvidia.com/en-gb/training/> to access more training and resources.
 - Start online, self-paced training in deep learning and accelerated computing (using the account you created today).
 - View upcoming workshops around the world and request an onsite workshop at your company or organization
 - Learn about the University Ambassador Program.
- Ready to kick off a deep learning project or already working on one? Choose the best software and hardware solutions at <https://developer.nvidia.com/deep-learning>

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**
 - **Scaling CUDA C++ Applications to Multiple Nodes**
 - **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

PRACE Training



LRZ as part of the Gauss Centre for Supercomputing (GCS), CSC and IT4Innovations belong 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)



Univerza v Ljubljani



Irish Centre for High-End Computing

VSB TECHNICAL UNIVERSITY OF OSTRAVA

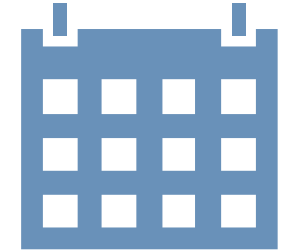
IT4INNOVATIONS NATIONAL SUPERCOMPUTING CENTER



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/>

Upcoming Courses and Workshops @ LRZ



Introduction to LRZ HPC Systems with Focus on CFD Workflows	14.06.2022 – 14.06.2022	ONLINE	0.00 €	63		Register now
Hybrid Programming in HPC - MPI+X (register via PRACE)	22.06.2022 – 24.06.2022	ONLINE	0.00 €	65		
HPC Code Optimisation Workshop (register via PRACE)	27.06.2022 – 29.06.2022	ONLINE	0.00 €	65		
Deep Learning and GPU programming using OpenACC @ HLRS (register via HLRS)	12.07.2022 – 14.07.2022	Universität Stuttgart - Höchstleistungsrechenzentrum Stuttgart	0.00 €	65		
Deep Learning Week	25.07.2022 – 29.07.2022	ONLINE	0.00 €	4		Register now
Introduction to LRZ HPC Systems with Focus on CFD Workflows	10.08.2022 – 10.08.2022	ONLINE	0.00 €	65		Register now
Introduction to LRZ HPC Systems with Focus on CFD Workflows	12.10.2022 – 12.10.2022	ONLINE	0.00 €	65		Register now
Introduction to ANSYS Fluent	27.10.2022 – 08.12.2022	ONLINE	0.00 €	49		Register now
Introduction to LRZ HPC Systems with Focus on CFD Workflows	14.12.2022 – 14.12.2022	ONLINE	0.00 €	65		Register now

Upcoming Courses and Workshops



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- **Information on further HPC courses and events:**

- 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/>
- by the EuroCC national competence centres: <https://www.eurocc-access.eu/services/training/>

Mailing Lists



- Subscribe via <https://lists.lrz.de/mailman/listinfo/newsletter> 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.



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Thank you!

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