

IWR Dune / PDELab Course 2019

March 4 – 8, 2019

Location, Schedule, Registration

The course takes place on the top floor of **Mathematikon Bauteil A, Im Neuenheimer Feld 205** (the southernmost of three very similar buildings). See the other side for a detailed schedule. Registration starts Monday at 08:45 in front of the seminar room.

Exercises / Labs

In order to give you a working DUNE environment that you can take home with you, you will work on your own laptop using a virtual machine. Please bring your laptop with VirtualBox (≥ 6.0) preinstalled, which you can download from <https://www.virtualbox.org/> (Windows, macOS) or install it using the package manager on most Linux distributions. If you are not able to bring a laptop, please contact us in advance.

If you have paid a registration fee, you will get a USB stick with the virtual machine image that you can keep; otherwise you will have to copy it to your laptop in the first lab session. You need 16 GB of free space for the image.

Lunch

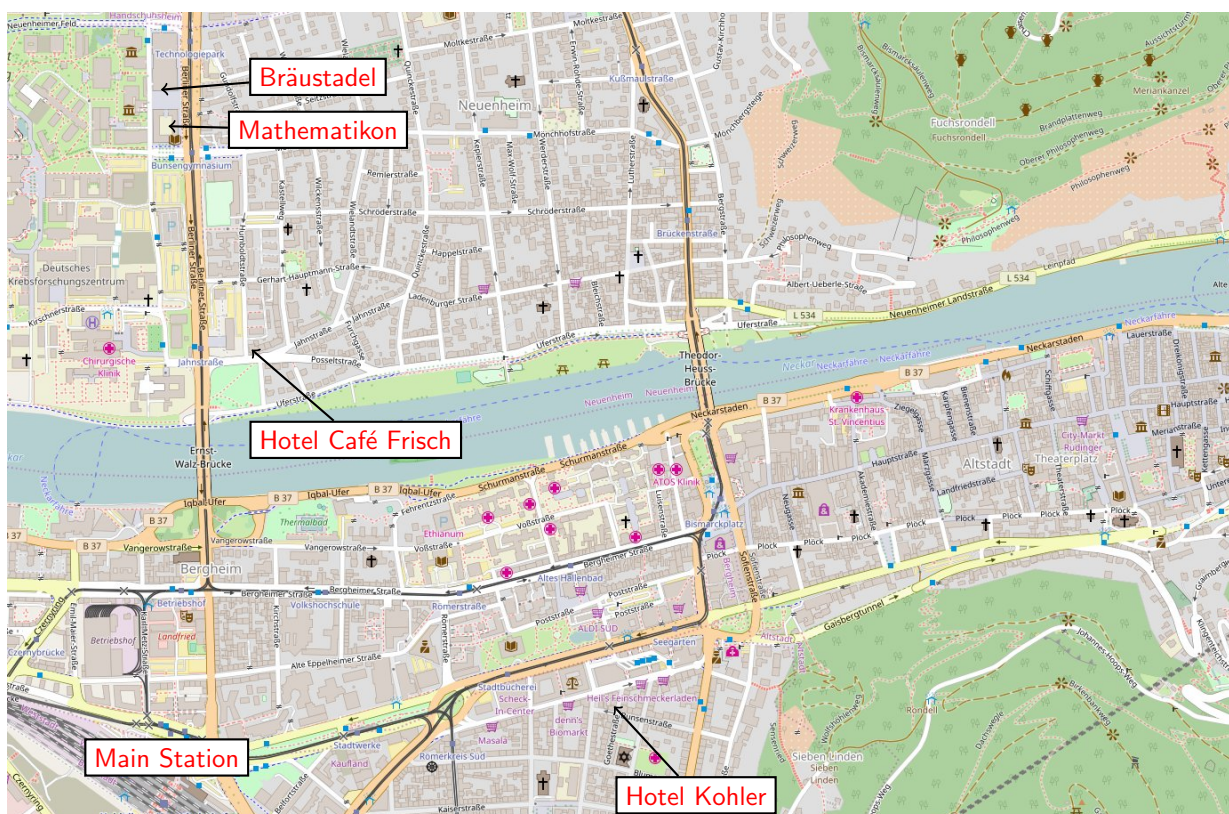
For our Lunch breaks we will go to the restaurant Bräustadel, Berliener Strasse 41, which is right next door to Mathematikon. Participants who have paid a registration fee will receive lunch vouchers. With those vouchers you get one of the weekly lunch deals, a small non-alcoholic drink and a dessert for free.

Social Event / Course Dinner

We will have a social event / Dinner for all participants on **Wednesday starting at 19:30**. Like the coffee breaks and the icebreaker, this will take place in the **Common Room** next door to the seminar room.

Note: The main entrance to the building is locked in the evening. If you are stuck outside, you can call the phone in the Common Room at +49 6221 54 14441.

Map



| | Monday | Tuesday | Wednesday | Thursday | Friday |
|-------|--|--|---|---|---|
| 08:00 | | | | | |
| 09:00 | 08:45 – 09:15 Registration 05.104 | 09:15 – 10:45 The DUNE Grid API Christian Engwer 05.104 | 09:15 – 10:45 PDELab for Elliptic Problems Part I Peter Bastian 05.104 | 09:15 – 10:45 Solving Instationary Problems with PDELab TBA 05.104 | 09:15 – 10:45 Adaptivity in PDELab Ole Klein TBA |
| 10:00 | 09:15 – 10:45 Welcome Advanced C++ for Scientific Computing Olaf Ippisch 05.104 | 10:45 – 11:15 Coffee Break Common Room | 10:45 – 11:15 Coffee Break Common Room | 10:45 – 11:15 Coffee Break Common Room | 10:45 – 11:15 Coffee Break Common Room |
| 11:00 | 10:45 – 11:15 Coffee Break Common Room | 11:15 – 12:45 Exercises Common Room | 11:15 – 12:45 Exercises Common Room | 11:15 – 12:45 Exercises Common Room | 11:15 – 12:45 Parallelization with PDELab Common Room |
| 12:00 | 11:15 – 12:00 Advanced C++ for Scientific Computing (continued) 05.104 | 12:00 – 12:45 Virtual Machine Setup on Participants' Computers 05.104 | 12:45 – 14:00 Lunch Bräustadel | 12:45 – 14:00 Lunch Bräustadel | 12:45 – 14:00 Lunch Bräustadel |
| 13:00 | 12:00 – 12:45 Virtual Machine Setup on Participants' Computers 05.104 | 12:45 – 14:00 Lunch Bräustadel | 12:45 – 14:00 Lunch Bräustadel | 12:45 – 14:00 Lunch Bräustadel | 12:45 – 14:00 Lunch Bräustadel |
| 14:00 | 14:00 – 15:30 Unix Primer / Exercises Steffen Mürthing 05.104 | 14:00 – 15:30 Simulation Workflow Dominic Kempf 05.104 | 14:00 – 15:30 PDELab for Elliptic Problems Part II Peter Bastian 05.104 | 14:00 – 15:30 Solving Systems of PDEs with PDELab Steffen Mürthing 05.104 | 14:00 – 15:30 Exercises Ole Klein/René Heß TBA |
| 15:00 | 15:30 – 16:00 Coffee Break Common Room | 15:30 – 16:00 Coffee Break Common Room | 15:30 – 16:00 Coffee Break Common Room | 15:30 – 16:00 Coffee Break Common Room | 15:30 – 16:00 Coffee Break Common Room |
| 16:00 | 16:00 – 17:30 Introduction to Finite Elements Peter Bastian 05.104 | 16:00 – 17:30 Exercises Dominic Kempf 05.104 | 16:00 – 17:30 Exercises Linus Seelinger 05.104 | 16:00 – 17:30 Exercises Linus Seelinger 05.104 | 16:00 – 17:30 Exercises Linus Seelinger 05.104 |
| 17:00 | 17:30 – 18:30 Icebreaker / Get Together Common Room | | | | |
| 18:00 | | | 18:30 – 19:00 Dinner (19:30) Common Room | | |