# DUNE Course (2016, March 7-11, IWR, University of Heidelberg)

DUNE Course Day 01 (Monday, March 07, 2016)		
Hours	Topics	
8:45-9:15	Registration	
9:15-9:30	Welcome (Speaker: Peter Bastian)	
9:30-10:45	Advanced C++ for Scientific Computing (Speaker: Olaf Ippisch)	
10:45-11:15	Coffee Break	
11:15-12:00	Advanced C++ for Scientific Computing cont. (Speaker: Olaf Ippisch)	
12:00-12:45	Exercises	
12:45-14:00	Lunch Break	
14:00-15:30	Exercises	
15:30-16:00	Coffee Break	
16:00-17:30	Introduction to Finite Elements (Speaker: Peter Bastian)	
17:30-18:30	Get Together	

DUNE Course Day 02 (Tuesday, March 08, 2016)	
9:15-10:45	The DUNE grid API (Speaker: Christian Engwer)
10:45-11:15	Coffee Break
11:15-12:45	Exercises
12:45-14:00	Lunch Break
14:00-15:30	Simulation Workflow (Speaker: Dominic Kempf)
15:30-16:00	Coffee Break
16:00-17:30	Exercises

DUNE Course Day 03 (Wednesday, March 09, 2016)		
9:15-10:45	PDELab for elliptic problems: Part 1 (Speaker: Peter Bastian)	
10:45-11:15	Coffee Break	
11:15-12:45	Exercises	
12:45-14:00	Lunch Break	
14:00-15:30	PDELab for elliptic problems: Part 2 (Speaker: Peter Bastian)	
15:30-16:00	Coffee Break	
16:00-17:30	Exercises	
19:30	Social Event	

DUNE Course Day 04 (Thursday, March 10, 2016)	
9:15-10:45	Solving instationary problems with PDELab (Speaker: Peter Bastian)
10:45-11:15	Coffee Break
11:15-12:45	Exercises
12:45-14:00	Lunch Break
14:00-15:30	Solving systems of PDEs with PDELab (Speaker: Steffen Müthing)
15:30-16:00	Coffee Break
16:00-17:30	Exercises

DUNE Course Day 05 (Friday, March 11, 2016)		
9:15-10:45	Adaptivity in PDELab (Speaker: Ole Klein)	
10:45-11:15	Coffee Break	
11:15-12:45	Parallelization with PDELab (Speaker: Olaf Ippisch)	
12:45-14:00	Lunch Break	
14:00-15:30	Exercises	
End of the DUNE course		

### Lectures and registration

Lectures and registration will take place in room 05.104 of the Mathematikon, Im Neuenheimer Feld 205. For all of you, who have visited us before, note that we have moved to a new building!

#### **Exercises**

The exercises will take place in the seminar room. Participants will work on their laptops using a virtual machine. Please bring your laptop with Virtualbox (>= 5.0) preinstalled. You can download virtualbox from https://www.virtualbox.org/. If you are not able to bring a laptop, please contact us in advance.

## Coffee Breaks, Get Together and Social Event

Coffee breaks, come together and social event will take place in the "common room" next to the seminar room.

#### **Lunch Breaks**

Lunch will be taken in the Mensa, Im Neuenheimer Feld 304. Paying participants will be handed out lunch coupons upon registration.