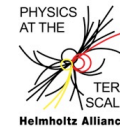


# Welcome to the School Introduction to the Terascale!

Helmholtz Alliance

## PHYSICS AT THE TERASCALE



Deutsches Elektronen-Synchrotron DESY +++ Karlsruher Institut für Technologie - Großforschungsbereich +++ Max-Planck-Institut für Physik +++ Rheinisch-Westfälische Technische Hochschule Aachen  
+++ Humboldt-Universität zu Berlin +++ Rheinische Friedrich-Wilhelms-Universität Bonn +++ Technische Universität Dortmund +++ Technische Universität Dresden +++ Albert-Ludwigs-Universität Freiburg +++ Justus-Liebig-Universität Gießen +++ Georg-August-Universität Göttingen +++ Universität Hamburg +++ Ruprecht-Karls-Universität Heidelberg +++ Karlsruher Institut für Technologie - Universitätsbereich +++ Johannes Gutenberg-Universität Mainz +++ Ludwig-Maximilians-Universität München +++ Universität Regensburg +++ Universität Rostock +++ Universität Siegen +++ Julius-Maximilians-Universität Würzburg +++ Bergische Universität Wuppertal +++

### Introductory School “Terascale Physics”

20-24 April 2015  
DESY, Hamburg

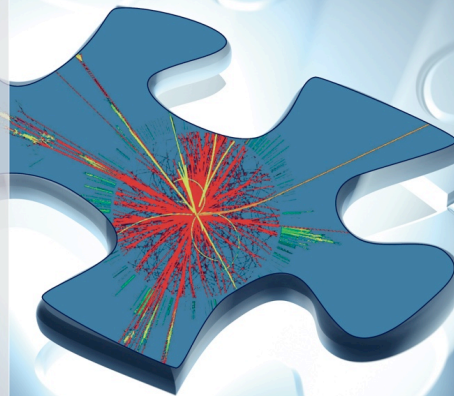
The introductory school aims at providing essential information and techniques for LHC physics. While targeting master and young PhD students, everybody is welcome to attend. The program consists of lectures and hands-on tutorials.

**Lectures will cover:**

- Higgs physics
- Top physics
- Standard Model processes
- Searches for new physics
- Present LHC detectors and upgrade plans for Phase II
- Soft skills

**Tutorials will address:**

- Introduction to ROOT
- Full analysis walk-through
- Fast detector simulation



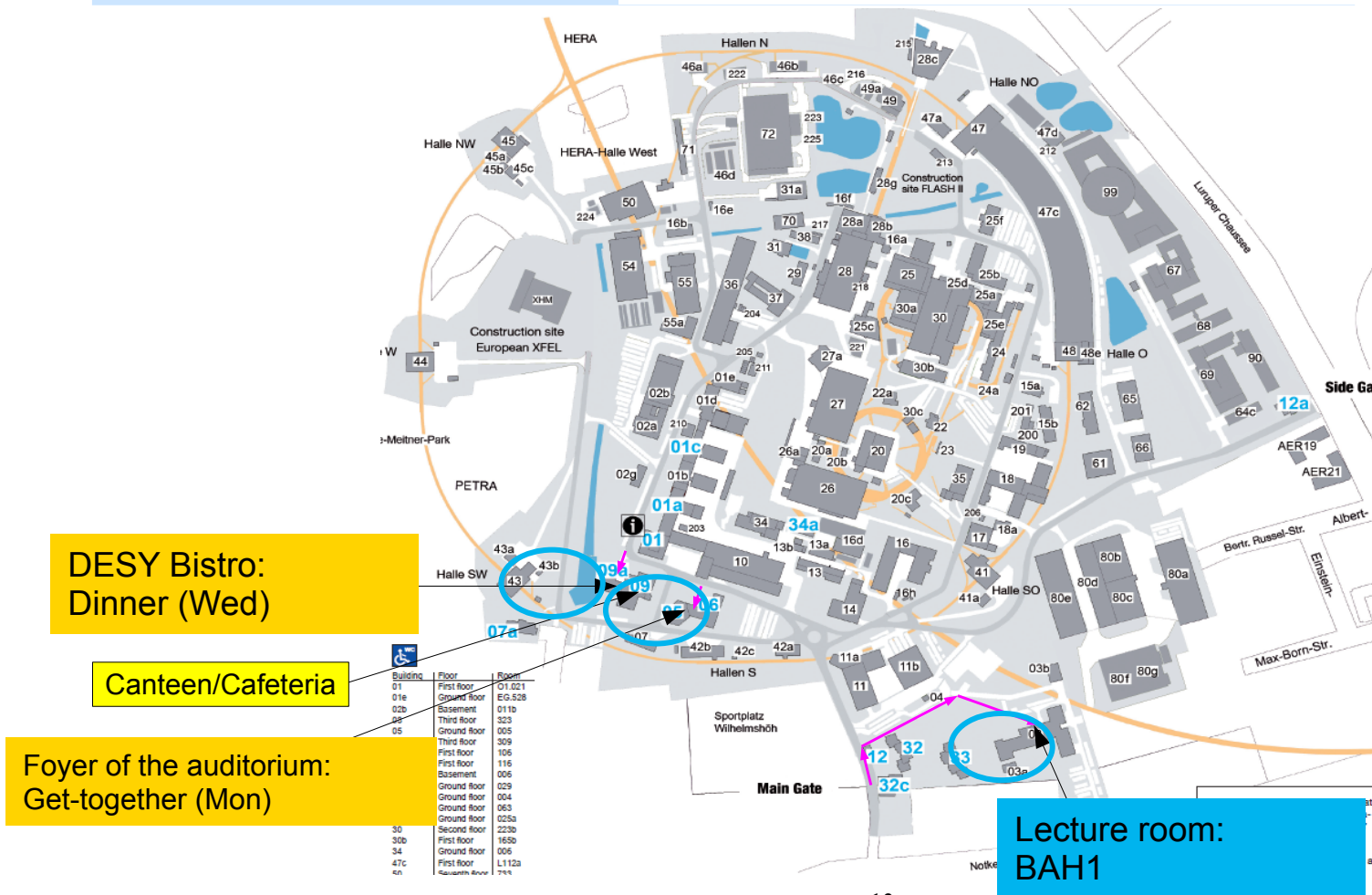
# Program

Monday	Tuesday	Wednesday	Thursday	Friday
	09:00 <b>Higgs Physics</b>	09:00 <b>Detectors in Particle Physics</b>	09:00 <b>Search for Supersymmetry</b>	09:00 <b>Soft skills: Relaxation and dealing with nerves, (location/audience/difficult questions)</b>
	10:00 <i>BAH 1, DESY Hamburg</i>	10:00 <i>BAH 1, DESY Hamburg</i>	10:00 <i>BAH 1, DESY Hamburg</i>	10:00 <i>BAH 1, DESY Hamburg</i>
	<b>Coffee break</b> <i>BAH 1, DESY Hamburg</i>	<b>Coffee break</b> <i>BAH 1, DESY Hamburg</i>	<b>Coffee break</b> <i>BAH 1, DESY Hamburg</i>	<b>Coffee break</b> <i>BAH 1, DESY Hamburg</i>
	11:00 <b>Standard Model measurements</b>	11:00 <b>Tutorial: Analysis "walk-through"</b>	11:00 <b>Search for new physics with top quarks and exotica</b>	11:00 <b>LHC and detector upgrade</b>
	12:00 <i>BAH 1, DESY Hamburg</i>	12:00 <i>BAH 1, DESY Hamburg</i>	12:00 <i>BAH 1, DESY Hamburg</i>	12:00 <i>BAH 1, DESY Hamburg</i>
	<b>Lunch break</b>	<b>Lunch break</b>	<b>Lunch break</b>	<b>Goodbye</b>
	<i>BAH 1, DESY Hamburg</i>	<i>BAH 1, DESY Hamburg</i>	<i>BAH 1, DESY Hamburg</i>	<i>BAH 1, DESY Hamburg</i>
14:00 <b>Welcome</b> <i>BAH 1, DESY Hamburg</i>	14:00 <b>Tutorial: Analysis "walk-through"</b>	14:00 <b>Tutorial: Analysis "walk-through"</b>	14:00 <b>Tutorial: Delphes fast simulation</b>	
<b>Introduction to Terascale Physics</b>	15:00 <i>BAH 1, DESY Hamburg</i>	15:00 <i>BAH 1, DESY Hamburg</i>	15:00 <i>BAH 1, DESY Hamburg</i>	
15:00 <i>BAH 1, DESY Hamburg</i>	<b>Coffee break</b> <i>BAH 1, DESY Hamburg</i>	<b>Coffee break</b> <i>BAH 1, DESY Hamburg</i>	<b>Coffee break</b> <i>BAH 1, DESY Hamburg</i>	
<b>Coffee break</b> <i>BAH 1, DESY Hamburg</i>	16:00 <b>Tutorial: Analysis "walk-through"</b>	16:00 <b>Top-quark measurements</b>	16:00 <b>Tutorial: Delphes fast detector simulation</b>	
16:00 <b>Root Tutorial</b>	17:00 <i>BAH 1, DESY Hamburg</i>	17:00 <i>BAH 1, DESY Hamburg</i>	17:00 <i>BAH 1, DESY Hamburg</i>	
17:00 <i>BAH 1, DESY Hamburg</i>	18:00	18:00		
18:00				
		19:00 <b>School dinner</b>		
19:00 <b>Get-together</b> <i>Foyer of the auditorium, DESY Hamburg</i>				



# Where to go

## The DESY Site and venues



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# Internet

We set up a special WLAN for the school, please use this one:

- > Name: terascale
- > WPA/WPA2-PSK: XxPWjNH7



# School-accounts on the NAF

- > You will all be provided with a login name to work on the German NAF on special prepared login nodes – more this afternoon at the beginning of the root tutorial

