An aerial photograph of a residential area. In the center, there is a cluster of buildings with red roofs, surrounded by green trees. To the right, a river or canal is visible with several small boats docked along the shore. The surrounding landscape is a mix of dense green trees and some open fields.

Welcome

Geant4 Training event
Calorimetry in HEP

Andreas Schälicke

Geant4 & Calorimetry



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 +++ Julius-Ludwig-Universität Göttingen +++ Georg-August-Universität Göttingen +++ Universität Hamburg +++ Ruhr-Universität Bochum +++ Universität Heidelberg +++ Karlsruher Institut für Technologie - Universitätsbibliothek +++ Johannes-Gutenberg-Universität Mainz +++ Ludwig-Maximilians-Universität München +++ Universität Regensburg +++ Universität Rostock +++ Universität Siegen +++ Julius-Maximilians-Universität Würzburg +++ Bergische Universität Wuppertal +++

- 2nd Geant4 training event at DESY
- one of many events organised by the
- Alliance “Physics at the TeraScale”

Geant4 Training Event Calorimetry in HEP

10 - 13 May 2011
DESY, Zeuthen Site

Key objectives

- learn about detector physics - especially in context of calorimetry
- obtain good knowledge about Geant4 and deeper understanding of detector issues using Geant4 simulations
- learn about pro and cons of modern calorimeter approaches, namely PFA and Dual-Readout

Topics

- physics of calorimetry
- Geant4: introduction, geometry, material, particle, processes
- Geant4: electromagnetic physics
- Dual-Readout calorimetry
- Geant4: optical physics, exotics
- Geant4: hadronic physics
- Calice and Particle Flow Algorithm
- validation of Geant4
- student projects and their presentation

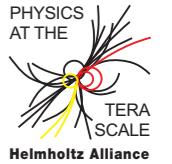
Key speakers

- Erika Garutti (DESY)
- Vladimir Ivanchenko (CERN)
- Hermann Kolanoški (HU Berlin)
- Hans Wenzel (FNAL)

Registration deadline is 1 April 2011, the registration fee is 40 Euro.
In case of questions contact anacen@desy.de. For more details and in order to register, please visit the school web page.

<http://www.terascale.de/geant2011>

Alliance “Physics at the TeraScale”



Helmholtz Alliance

PHYSICS AT THE TERASCALE

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Analysis Centre Schools and Workshops 2011

- Introductory School to the Terascale**
21-25 February 2011
DESY, Hamburg
terascale.de/intro2011
- Monte Carlo School 2011**
14-17 March 2011
DESY, Hamburg
terascale.de/mc2011
- Computer Algebra & Particle Physics 2011**
20-25 March 2011
DESY, Zeuthen
terascale.de/capp2011
- School on Statistics 2011**
4-7 April 2011
Johannes Gutenberg-Universität, Mainz
terascale.de/statistics2011
- Geant4 Training**
10-13 May 2011
DESY, Zeuthen
terascale.de/geant2011
- Standard Model Benchmark Processes at the LHC**
15-17 June 2011, DESY, Zeuthen
terascale.de/smcandles2011
- Single-Top Workshop**
5-6 September 2011
DESY, Hamburg
terascale.de/singletop2011

http://www.terascale.de/schools_and_workshops

- www.terascale.de

Program

- 4 days (Tuesday to Friday)
- Topics
 - Physics of Calorimetry (Tuesday)
 - Geant4 tutorial (Tue - Thu)
 - Analysis (Thu - Fri)
- please check indico for last minute changes
indico.desy.de/event/geant2011
- picture taking: Wednesday before lunch

People

- Erika Garutti (DESY)
- Vladimir Ivanchenko (CERN, ESA)
- Hermann Kolanoski (HU Berlin)
- Karim Laihem (RWTH Aachen)
- Zachary Marshall (CERN)
- Andreas Schälicke (University of Edinburgh)
- Hans Wenzel (FNAL)

Venue: Zeuthen

- All lectures and tutorials here:
Seminar room I
- Registration and coffee breaks:
Foyer in front of Seminar room
- Lunch & Reception (Barbecue)
in front of Desy Zeuthen Cantine

Computer

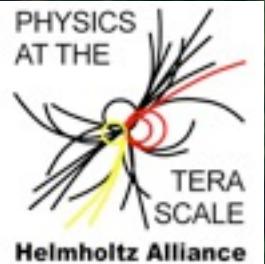
- use local Desktops for exercises
(SL6 machines)
- Login guest or use a DESY account

Questions

- WLAN
 - if you have entered your MAC address in the registration form you should use **DESY-guest**
 - alternative **EDUROAM**
- Other questions:
 - please ask any of the organiser or secretary: **Martina Mende**

Welcome

- to DESY Zeuthen
- and to this school



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