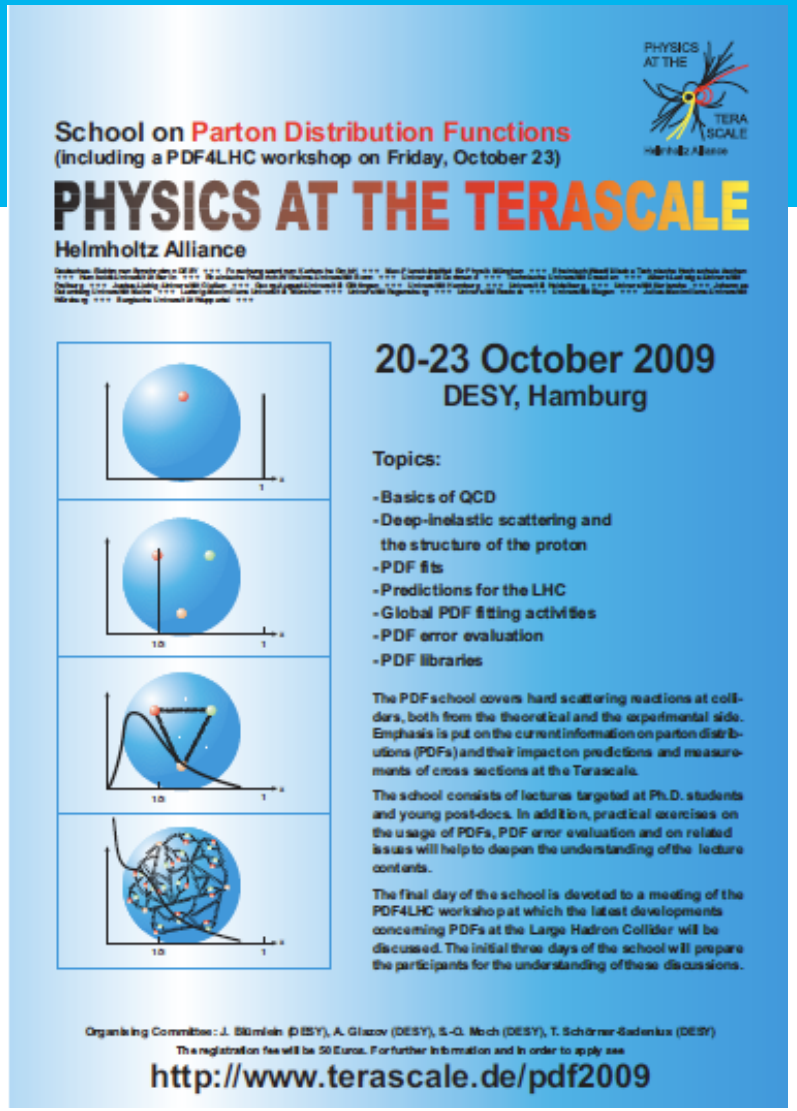
PDF School 2009

Welcome and introduction



Thomas Schörner-Sadenius
(for the Analysis Centre)

Hamburg, 20 October 2009

HELMHOLTZ GEMEINSCHAFT

PHYSICS AT THE TERA SCALE
Helmholtz Alliance

DESY

WELCOME …

… to the PDF school 2009!

- The aim of the school: Provide deeper knowledge about parton distribution functions and their QCD basics :
  - Basics of QCD
  - alphas and PDF evolution
  - PDF fits
  - PDF error treatment, PDF libraries, etc.
- Furthermore, a chance to get to know more people with similar interests (and problems)
  → facilitate building of networks across the Alliance.
- Important / interesting for me: contacts between different experiments (ATLAS and CMS, HERA community etc.).
  → an important part of the whole “Alliance” idea.
- Last but not least: PDF4LHC workshop on Friday!

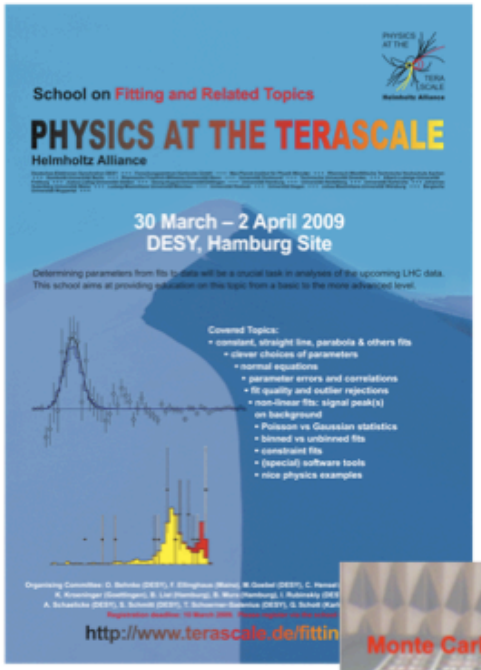
TIMETABLE

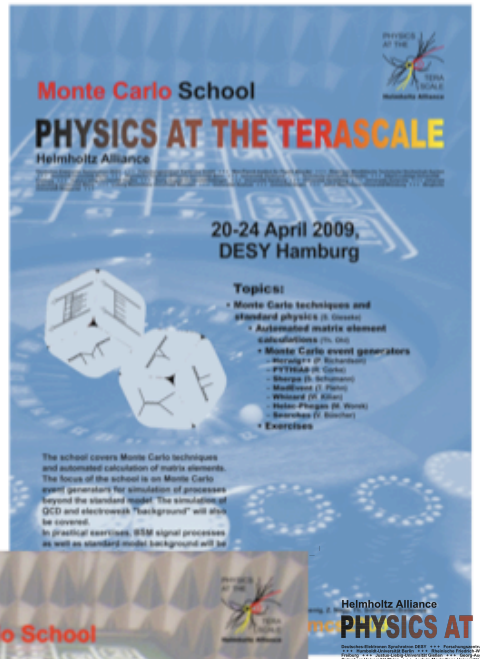
	Tuesday 20 October 2009		Wednesday 21 October 2009		Thursday 22 October 2009	
AM	08:30	Registration	09:30	Introduction to QCD 3 - Sven-Olaf Moch (*DESY*) (Sem Room 4)	09:00	PDFs and Physics at Tevatron and LHC - Joey Huston (*Michigan State University*) (Sem Room 4)
	09:30	Welcome and introduction - Thomas Schoerner-Sadenius (*DESY*)	10:30	--- Coffee ---	10:00	--- break ---
	09:35	Introduction to QCD 1 - Sven-Olaf Moch (*DESY*) (Sem Room 4)	11:00	Introduction to QCD 4 - Sven-Olaf Moch (*DESY*) (Sem Room 4)	10:30	PDF uncertainties and LHC predictions - Alberto Guffanti (*Freiburg University*) (Sem Room 4)
	10:30	--- coffee ---	12:00	--- Lunch ---	11:30	--- Lunch ---
	10:45	Introduction to QCD 2 - Sven-Olaf Moch (*DESY*) (Sem Room 4)				
	11:45	--- Lunch ---				
PM	14:00	Exercises: recursive methods for scattering amplitudes - Simon Badger (*DESY*)	14:00	Exercises: alpha_s Evolution - Ulrich Langenfeld (*HU Berlin*) Maple file; Slides	14:00	PDFs in MC, PDF libraries - Zoltan Nagy (*DESY*) (Sem Room 4)
	16:00	--- Coffee ---	16:00	--- Coffee ---	15:00	--- Coffee ---
	16:15	QCD Fits - Jon Pumplin (*Michigan State University*) (Sem Room 4)	16:30	Deep Inelastic Scattering - Amanda Cooper-Sarkar (*Oxford University*) (Sem Room 4)	15:30	Exercises: PDF error evaluation
					17:00	Predictions and PDFs for the LHC - Joey Huston (*Michigan State University*)
					19:30	School Dinner

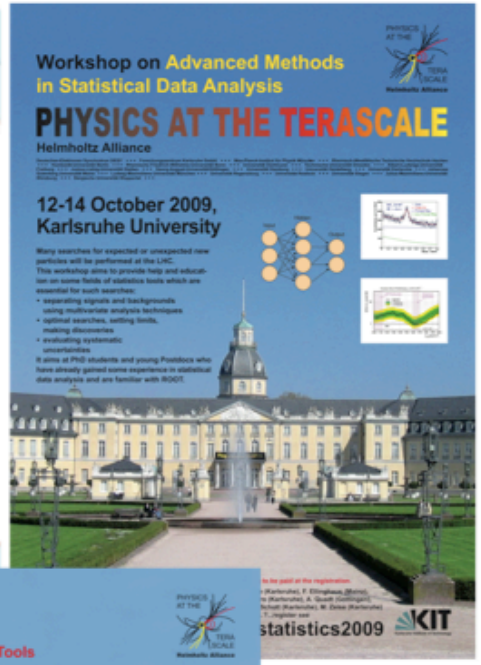
ORGANISATION DETAILS

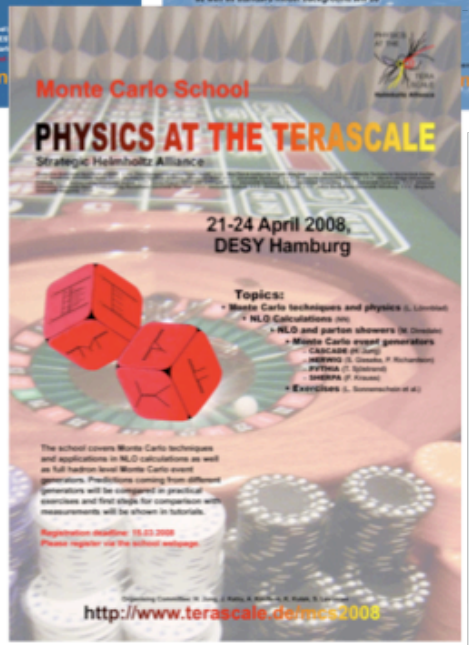
- WLAN is provided → information on paper
- For exercises:
  - With own laptop: Use school accounts to login to bastion.desy.de using ssh etc. Then move on to pdfschool cluster with the same account.
  - With DELL packs: log in using distributed school accounts.
  - MAPLE: start: xmaple13.s
- Analysis Seminar on Thursday, 5 p.m. in this seminar room:
  - J. Huston (MSU): “Predictions and PDFs for the LHC”
- Dinner on Thursday: In a small restaurant not far from here. We leave here at DESY at around19:30 and walk together.
  - Who will NOT be here?

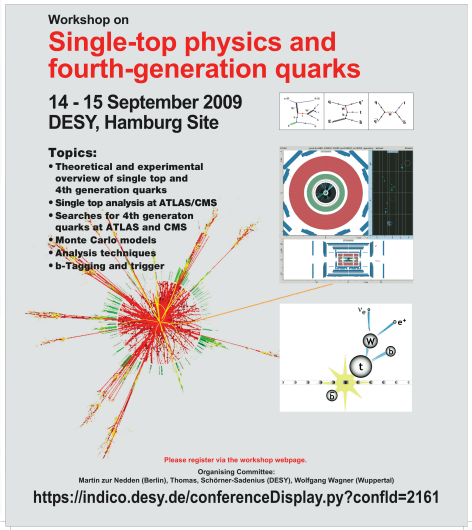
SCHOOLS AND WORKSHOPS

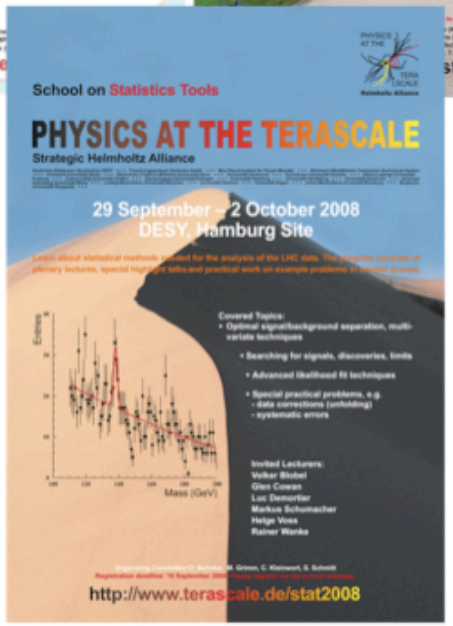












UPCOMING EVENTS

- Annual Meeting of the Helmholtz Alliance “Physics at the Terascale”, November 11-13, DESY (Hamburg)
  - Meetings of LHC-D working groups, Alliance research topics (analysis, grid, detector, accelerator), Analysis Working groups, and numerous plenaries.
  - Important for midterm evaluation of Alliance beginning of December.
  - Social event!

A WORD ON THE ANALYSIS CENTRE

and its efforts in education and training (and elsewhere):

- We provide education events especially in the fields of MC, statistics, and PDFs (but also in others).
- We depend on your input and feedback: Please
  - Let us know what you liked and what could be improved
  - Let us know what additional events you would like to have organised
  - → Send an email to anacen@desy.de

→ I am very much looking forward to seeing you again in any other Alliance context – school, workshop, working group, …

THANK YOU!

- To the many people who helped to put this school in place.
- To the organisation: Michaela Grimm, Alla Grabowsky, Sasha Glazov, Johannes Bluemlein
- To the lecturers and tutors: Sven Moch, Ulrich Langenfeld, Simon Badger, Jon Pumplin, Amanda Cooper-Sarkar, Joey Huston, Alberto Guffanti, Zoltan Nagy, …
- DESY IT
- … and, last but not least, to DESY and the Alliance for their financial and infrastructure support.