

Hamburg Higgs Workshop 2014

Welcome and information



**Hamburg Workshop
on Higgs Physics**
Preparing for Higgs Boson Studies with Future LHC Data

22-24 October 2014
DESY, Hamburg

Topics

- Properties of the state at 125 GeV
- BSM Higgs searches
- Overall picture from the available data and consistent interpretation
- Requirements and strategies for Higgs physics with 100/fb and beyond

Organising Committee:
Rainer Mankel, Andreia B. Meyer, Alexei Rosperez, Jürgen Heide, Thomas Schirmer-Sadenich, Frank Tackmann, Kerstin Tackmann, Georg Weiglein

Contact: anacen@desy.de
Registration deadline: 1 October 2014

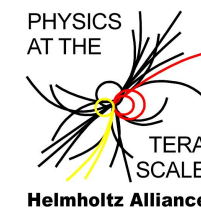
For more information and registration go to:
www.terascale.de/higgs2014



Rainer Mankel
DESY-FH



DESY, 22 October 2014



TIMETABLE

	Wednesday 22 October 2014	Thursday 23 October 2014	Friday 24 October 2014
AM		09:00 BSM Higgs Searches (until 12:30) 09:00 BSM Higgs Searches: Experimental Overview - Alexandre Nikitenko Slides 09:45 SUSY and 2HDM - Sven Heinemeyer (IFCA (CSIC, Santander)) 10:30 Search for BSM Higgs Bosons in b-Jet Final States at CMS - Matthias Schröder (DESY) 10:50 --- Coffee break --- 11:20 Boosted Higgs as key to searches for new physics - Maxime Gouzevitch (CERN) 11:40 SUSY Non-Standard Higgs Searches Vs Precision Higgs Measurements at the LHC - Marcela Carena (Fermilab) 12:10 Lepton Flavor Violating Higgs Decays - Daniel Troendle (Uni Hamburg) 12:30 --- Lunch break ---	09:00 Summary, Discussion, and Requirements for Higgs with $O(100/\text{fb})$ (until 13:00) 09:00 Prospects and Preparations for 100/fb - Markus Schumacher (Albert-Ludwigs-Universität Freiburg) 09:45 Theoretical Precision - Daniel De Florian 10:30 Measuring the Higgs-charm coupling with heavy quarkonia - Chung Hee-Sok (ANL) 10:50 Resummation of b-quark mass effects in bbH-induced Higgs production - Andrew Papanastasiou (DESY, Hamburg) 11:10 --- Coffee break --- 11:30 Theoretical and experimental constraints on the real Higgs singlet extension of the Standard Model - Tania Robens (IKTP, TU Dresden) 11:50 Higgs pair production at the LHC: SM and beyond - Eleni Vryonidou 12:10 Projections for measurements of Higgs boson cross sections, branching ratios and coupling parameters with the ATLAS detector - Elisabeth Petit (DESY) 12:30 Prospects for searches of rare decays of the 125 GeV Higgs boson with the ATLAS detector - Yanping Huang (DESY) 12:50 Closing remarks
PM	14:00 Properties of the state at 125 GeV (until 18:30) 14:00 Welcome address 14:10 Experimental overview of properties - Andre David 14:55 Effective Lagrangian Approach - Ansgar Denner (Universitaet Wuerzburg) 15:40 Determination of Spin and Parity of the Higgs boson with the ATLAS detector in Run 1 and prospects for Run 2 - Tatjana Lenz (Univ. Wuppertal) 16:00 Accurate predictions for Higgs characterisation - Marco Zaro 16:20 --- Coffee break --- 16:50 Resummation of jet veto observables in Higgs production - Shireen Gangal (DESY) 17:10 Off-shell effects in Higgs decays to gauge bosons at a LC and implications for the LHC - Stefan Liebler (Universität Hamburg) 17:30 Far off-shell Higgs production in H->WW, ZZ - Ian Moutt (MIT) 17:50 Weak corrections to Higgs hadroproduction in association with a top-quark pair - Davide Pagani (UC Louvain) 18:10 Discussion	14:00 BSM Higgs Searches (until 15:00) 14:00 Impact of interference effect on MSSM Higgs boson searches - Elina Fuchs (DESY) 14:20 Phenomenology and benchmark scenarios for heavy Higgs searches in the 2HDM - Oscar Stål (DESY) 14:40 Excessive Higgs pair production from sparticles in the NMSSM - Ulrich Ellwanger 15:00 Integration of Measurements and Consistent Interpretation (until 18:00) 15:00 Combination of signal, BSM Higgs and SUSY - Philip Bechtle (DESY) 15:45 The global electroweak fit at NNLO and prospects for the LHC ILC and with Gfitter - Roman Kogler (University of Hamburg) 16:05 --- Coffee break --- 16:35 A new framework to perform hypothesis tests using unfolded distributions - Florian Bernlochner 16:55 NMSSM interpretations of the observed Higgs signal - Florian Domingo (DESY) 17:15 Higgs couplings after LHC Run I - Jeremy Bernon 17:35 Discussion 18:30 Dinner(Hamburg)	



ORGANISATIONAL ISSUES

- > All speakers: Please make sure your talks are on INDICO well in advance of the start of your session.
 - In case of problems as local organisers.
- > Late registration: coffee breaks!
 - Mrs Krohn / Mrs Grabowsky at reception desk
- > WLAN: please use eduroam or dedicated workshop WLAN

Network name:	Higgs2014
WPA-PSK:	F9bxm9pM

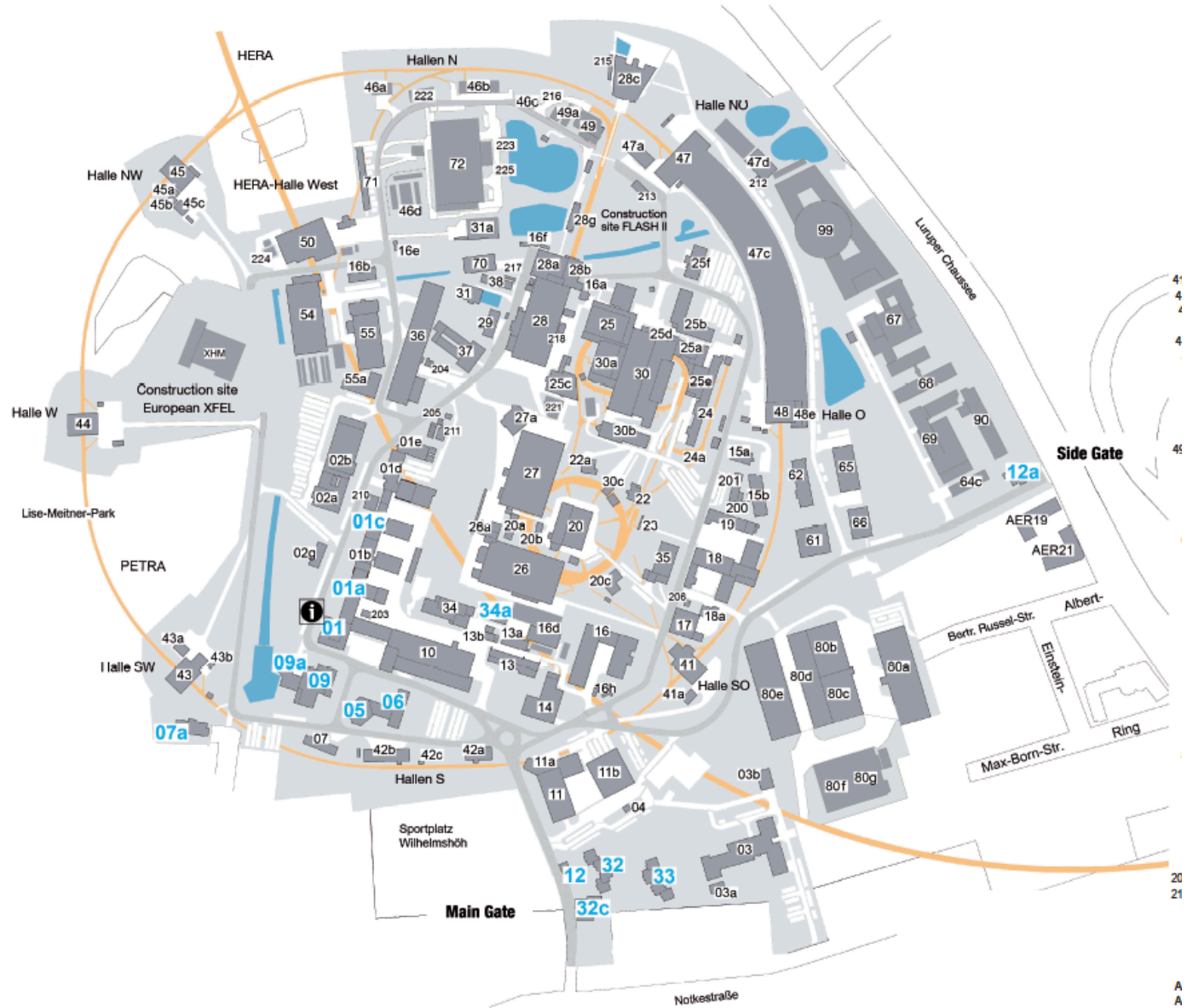
- > Dinner: at Groeninger Brauhaus, Thursday evening
 - Bus leaves Thursday at 18:30 from outside head of building 1 (see map)
 - Bus leaves Groeninger for DESY at 22:00-22:30
 - Head count?



DESY – OVERVIEW



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