

The 13th Workshop of the LHC Higgs Cross Section Working Group

Cern, July 13-14, 2017

just 5 years ago

LHC-HXSWG organization

Steering Committee Members

ATLAS		CMS		THEORY			
Pierre Savard (Toronto)	Bill Murray (STFC/Warwick)	Andrey Korytov (University of Florida)	Marco Pieri (UCSD)	Daniel de Florian (Buenos Aires)	Christophe Grojean (Hamburg&Berlin)	Gino Isidori (Zürich)	Laura Reina (Florida State U.)

SC contacts

WGI : Laura, Pierre
 WG2: Gino, Marco
 WG3: Christophe, Bill
 X-groups: Daniel, Andrey

replacements to
be appointed soon

Working Group Conveners

- We are organized in 3 working groups.

Group TWiki	Mail to conveners	ATLAS	CMS	THEORY	
Higgs XS&BR	Mail	Paolo Francavilla (LPNHE-Paris)	Roberto Covarelli (Torino)	Massimiliano Grazzini (Zürich)	Robert Harlander (Wuppertal)
Higgs Properties	Mail	Chris Hays (Oxford)	Mingshui Chen (CN)	David Marzocca (Zürich)	Francesco Riva (CERN)
BSM Higgs	Mail	Liron Barak (CERN)	Roger Wolf (KIT)	Stefania Gori (Cincinnati)	Margarete Mühlleitner (Karlsruhe)

Theory Advisory Committee

(as from September 1st 2016) call for nominations soon

THEORY			
Sally Dawson (BNL)	Stefan Dittmaier (Freiburg)	Nigel Glover (Durham)	Fabio Maltoni (Louvain)
Alex Pomarol Clotet (Barcelona)	Gavin Salam (CERN)	Carlos Wagner (Argonne/Chicago)	Michelangelo Mangano (CERN/LPCC)

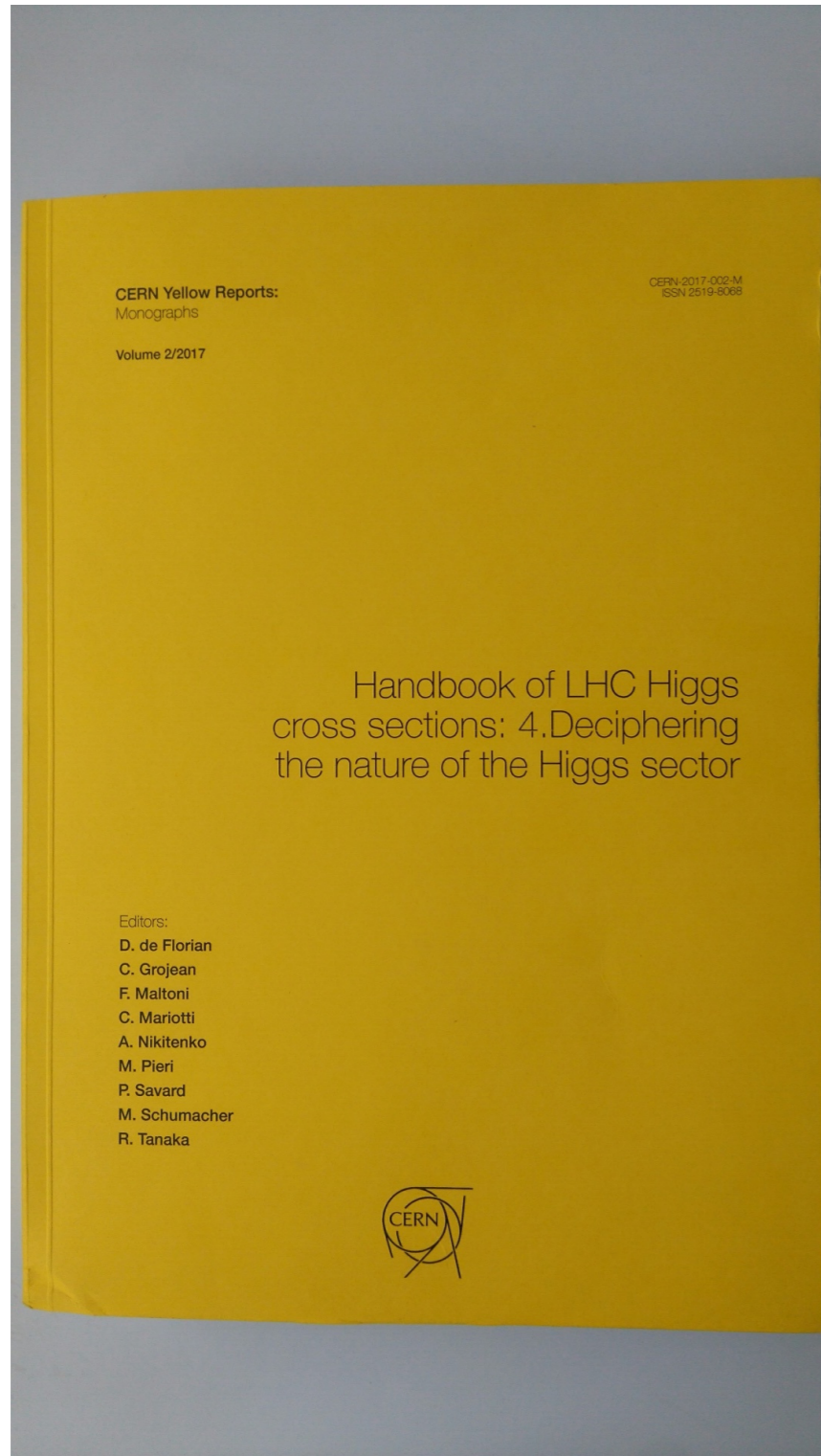
Sub-working Group / Task-force Group Conveners

Group TWiki	Group Mailing List	Mail to conveners	ATLAS	CMS		THEORY		
BR		Mail	Daniela Rebuffi (Pavia)	Ivica Puljak (Split)		Ansgar Denner (Würzburg)	Sven Heinemeyer (IFCA)	Alexander Mück (Aachen)
ggF		Mail	Dag Gillberg (CERN)	Andrea Massironi (Northeastern U)		Fabrizio Caola (CERN)	Pier Monni (CERN)	
VBF	Mailing List	Mail	Claudia Bertella (Chinese Academy of Sciences)	Pietro Govoni (Milano-Bicocca)		Barbara Jäger (Tübingen)	Alexander Karlberg (Zurich)	
VH	Mailing List	Mail	Carlo Pandini (Geneva)	Luca Perrozzi (ETH)		John Campbell (Fermilab)	Francesco Tramontano (Naples)	
ttH/TH	Mailing List	Mail	Stefan Guindon (SUNY)	Christopher Neu (Virginia)		Stefano Pozzorini (Zürich)	Laura Reina (Florida)	
bbH/bH		Mail	Lei.Zhang (Freiburg)	Alexandre Nikitenko (IC, London)		Michael Spira (PSI)	Marius Wiesemann (Zürich)	
HH		Mail	Magdalena Slawinska (NIKHEF)	Maxime Gouzevitch (Lyon)	Roberto Salerno (Ecole Polytechnique)	Sally Dawson (BNL)	Christoph Englert (Glasgow)	
Fiducial and Template XS	Mailing List	Mail	Nicolas Berger (LAPP)	Predrag Milenovic (CERN)		Frank Tackmann (DESY)		
Offshell		Mail	Roberto Di Nardo (CERN)	Meng Xiao (Johns Hopkins University)		Stefan Hoeche (SLAC)	Nikolas Kauer (Royal Holloway)	Jeremie Quevillon (King's College)
MSSM Neutral		Mail	Allison McCam (Michigan)	Andrew Gilbert (IC)		Stefan Liebler (DESY)	Pietro Slavich (LPTHE, Paris)	Michael Spira (PSI)
MSSM Charged		Mail	Jana Schaarshmidt (Seattle Washington)	Martin Flechl (Vienna)		Maria Ubiali (Cambridge)	Marco Zaro (LPTHE, Paris)	
NMSSM		Mail	David Strom (Oregon)	Nadjieh Jafari (CERN)		Ulrich Ellwanger (LPT, Orsay)	Margarete Mühleitner (Karlsruhe)	Florian Staub (CERN)
Neutral Extended Scalars		Mail	Xiaohu Sun (Chinese Academy of Sciences)	Raffaele Gerosa (Milano-Bicocca)		Heather Logan (Carleton)	Rui Santos (ISEL/CFTC, Lisbon)	Shufang Su (Arizona)
Exotic Decay		Mail	Shikma Bressler (Weizmann)	Abdollah Mohammadi (Universite Libre de Bruxelles (BE))		Stefania Gori (Perimeter Inst. for Theoretical Physics)	Jessie Shelton (UIUC)	
MCNet		Mail				Simon Plätzer (DESY)		
PDF		Mail	Joey Huston* (Michigan State)	Josh Bendavid (Caltech)		Stefano Forte (Milano)	Robert Thorne (UCL)	Joey Huston* (Michigan State)

WG2

Keep structure flexible to adapt to needs
2 experimental conveners

YR4 printed!! pick up your copy



YR4 uptake : presentation by Reisaburo

- ▶ No plan for YR5 (at least for the next couple of years)
- ▶ Interest on more specific notes HXSWG recommendations
 - Can start as Internal notes
 - Official Reports
 - can be cited by exp. collaborations
 - can be submitted to the arXiv
 - reviewed by WG members & SC
 - practical details on twiki page
- ▶ Next General Meeting after Moriond 2018 (March 26-27 Monday/Tuesday)
- ▶ Encourage discussions within WG/SubWG/XG
 - vidyo meetings
 - on-site meetings (limited support available)
 - keep twiki updated (roadmap and timeline for notes)

"Workshop on the physics of HL-LHC, and perspectives at HE-LHC"

Kickoff meeting October 30-November 1

Refine our understanding of the physics potential of the High Luminosity LHC. The Workshop will also provide the opportunity to begin a more systematic study of physics at the HE-LHC, a new pp collider in the LHC ring with CM energy in the range of 28 TeV.


► One group on Higgs Physics

- want to coordinate activities between both groups
- avoid duplication of efforts

Presentation by Michelangelo

09:00	Opening remarks 503-1-001 - Council Chamber, CERN	Daniel De Florian 09:00 - 09:10
	Status of the 125-GeV Higgs boson measurements (30' talk + 15' discussion) 503-1-001 - Council Chamber, CERN	Andrew Stephen Chisholm 09:10 - 09:55
10:00	Status of BSM Higgs boson searches (30' talk + 15' discussion) 503-1-001 - Council Chamber, CERN	Cecile Sarah Caillol 09:55 - 10:40
	Coffee Break 503-1-001 - Council Chamber, CERN	10:40 - 11:00
11:00	YR4 uptake 503-1-001 - Council Chamber, CERN	Reisaburo Tanaka 11:00 - 11:30
	NLO and parton shower requirements for HH 503-1-001 - Council Chamber, CERN	Eleni Vryonidou 11:30 - 11:50
	Tri-linear HHH coupling extraction 503-1-001 - Council Chamber, CERN	Fabio Maltoni 11:50 - 12:10
12:00	BSM physics and HH measurements at Run-2 503-1-001 - Council Chamber, CERN	Christoph Peter Englert 12:10 - 12:30

09:00	Introduction 503-1-001 - Council Chamber, CERN	09:00 - 09:30
	STXS/fidXS subgroup update 503-1-001 - Council Chamber, CERN	Frank Tackmann 09:30 - 10:00
10:00	Towards EFT: Experimental strategies for constraining anomalous Higgs boson interactions 503-1-001 - Council Chamber, CERN	Andrew Pilkington 10:00 - 10:30
	Coffee break 503-1-001 - Council Chamber, CERN	10:30 - 10:50
	Review of EFT analyses of Higgs + EW sector 503-1-001 - Council Chamber, CERN	Tilman Plehn 10:50 - 11:25
	Review of EFT analyses of Higgs + top sector 503-1-001 - Council Chamber, CERN	Eleni Vryonidou et al. 11:25 - 12:00
12:00	Report on bbH 503-1-001 - Council Chamber, CERN	Alexandre Nikitenko et al.  12:00 - 12:30

14:00	NMSSM status report 503-1-001 - Council Chamber, CERN	Ulrich Ellwanger 14:00 - 14:20
	MSSM status report 503-1-001 - Council Chamber, CERN	Stefan Rainer Liebler 14:20 - 14:40
	Extended status report 503-1-001 - Council Chamber, CERN	Xiaohu Sun 14:40 - 15:00
15:00	Charged status report 503-1-001 - Council Chamber, CERN	Jana Schaarschmidt  15:00 - 15:20
	Overview of the progress in the tools/programs used in WG3 503-1-001 - Council Chamber, CERN	Heidi Rzehak 15:20 - 15:50
	coffee break 503-1-001 - Council Chamber, CERN	15:50 - 16:10
16:00	Signature based talk 503-1-001 - Council Chamber, CERN	Stefania Gori 16:10 - 16:40
	Exotics status report 503-1-001 - Council Chamber, CERN	Jessie Shelton 16:40 - 17:00
17:00	The LHCb perspective 503-1-001 - Council Chamber, CERN	Lorenzo Sestini 17:00 - 17:15
	Presentation of the goals of the HL/HE-LHC Workshop (talk+discussion) 503-1-001 - Council Chamber, CERN	Michelangelo Mangano 17:15 - 18:00

13:00	ggF 503-1-001 - Council Chamber, CERN	Javier Mauricio Duarte 13:30 - 14:10
14:00	VBF 503-1-001 - Council Chamber, CERN	Alexander Karlberg et al. 14:10 - 14:30
	Off shell 503-1-001 - Council Chamber, CERN	Meng Xiao et al. 14:30 - 15:00
15:00	Coffee break 503-1-001 - Council Chamber, CERN	15:00 - 15:15
	VH 503-1-001 - Council Chamber, CERN	Carlo Enrico Pandini et al. 15:15 - 15:55
16:00	ttH 503-1-001 - Council Chamber, CERN	Christopher Neu et al. 15:55 - 16:35
	Meeting wrap-up 503-1-001 - Council Chamber, CERN	Christophe Grojean 16:50 - 17:00

18:00

17:00

► Dinner tonight Bergerie de Baizenas in Thoiry ? **NO!**



BBQ at Cern-Prevessin site

- need help for preparation
- need cars for transportation

Please pay CHF 25 today

Meet at 19:00 in parking area of building 40