

# **WG2 @ LHC Higgs XS WG**

**Recent news/activities and planned discussions/sessions**

**LHC Higgs WG General meeting, November 2020**

Nicolas Berger, Jorge de Blas, Giuliano Panico, Predrag Milenovic

# WG2 - Higgs properties

- **Organisational aspects:**

- Focus on the discussions/guidelines for the **measurements of the Higgs properties and their interpretations**  
Twiki: <https://twiki.cern.ch/twiki/bin/view/LHCPhysics/LHCHXSWG2>
- **Group organisation:**  
Conveners: J. de Blas (TH), G. Panico (TH), N. Berger (ATLAS), P. Milenovic (CMS)  
Recent change: M. Delmastro → N. Berger (ATLAS) - **thanks Marco! welcome Nicolas!**  
Newly incoming change: P. Milenovic → M. Donega (CMS)  
**Sub-group:** Fiducial/differential and simplified template XS measurements/guidelines  
Conveners: F. Tackmann (TH), L. Villiani (CMS), H. Yang (ATLAS)  
Recent change: N. Berger → H. Yang (ATLAS) - **thanks Nicolas! welcome Hongtao!**
- Natural interplay with all LHCHXSWG (sub-/cross-)groups and several LHC Physics groups (EW/TOP/EFT/etc.).

# WG2 - Higgs properties

- **Recent activities:**

- Recent public document: [BSM Benchmarks for EFTs in Higgs/EWK Physics \(LHCHXSWG-2019-006\)](#),
- Estimating the **STXS stage 1.2 uncertainties, extension of STXS with decay information**
- Initiative on establishing the **EFT interpretation workflow guidelines/recommendations** (TH → EXP)  
Twiki: <https://twiki.cern.ch/twiki/bin/view/LHCPhysics/EFTInterpretationWorkflow>  
Sign-up doc: [https://docs.google.com/document/d/1gPnfVrJ-M3aUehJyG-Dnq8oQ\\_JKlr2S4BUwIE15T1L4](https://docs.google.com/document/d/1gPnfVrJ-M3aUehJyG-Dnq8oQ_JKlr2S4BUwIE15T1L4)
- Recent meetings: [09/04 \(EFT\)](#), [25/06 \(STXS\)](#), [01/07 \(EFT\)](#), [04/11 \(STXS\)](#)

# WG2-related sessions

## WG2 session (Mon, Nov 9):

16:00	<b>BSM Benchmarks for Effective Field Theories in Higgs and Electroweak Physics</b> <i>Online only</i>	<i>Jose Santiago</i> 16:10 - 16:30
	<b>High-energy probes of Higgs EFT interactions</b> <i>Online only</i>	<i>Francesco Riva</i> 16:35 - 16:55
17:00	<b>Status of STXS (stage 1.2) and differential measurements</b> <i>Online only</i>	<i>Hongtao Yang et al.</i> 17:00 - 17:20
	<b>Simplified template bins in Higgs decays</b> <i>Online only</i>	<i>Michael Duehrssen-Debling</i> 17:25 - 17:45
18:00	<b>EFT interpretation workflow: Introduction</b> <i>Online only</i>	<i>Andrew Gilbert</i> 17:50 - 18:10
	<b>EFT interpretation workflow: BSM perspective</b> <i>Online only</i>	<i>Christophe Grojean</i> 18:15 - 18:35
	<b>EFT interpretation workflow: QCD, higher-orders and tools</b> <i>Online only</i>	<i>Eleni Vryonidou</i> 18:40 - 19:00

## Cross-topic session (Tue, Nov 10):

16:00	<b>On the yb sensitivity of bbH</b> <i>Online only</i>	<i>Marco Zaro</i> 16:10 - 16:25
	<b>Top mass scheme and scale uncertainties</b> <i>Online only</i>	<i>Michael Spira</i> 16:30 - 16:50
17:00	<b>ggF uncertainty</b> <i>Online only</i>	<i>Jonathon Mark Langford et al.</i> 17:00 - 17:20
	<b>STXS uncertainties in VBF/HH/ttH bins</b> <i>Online only</i>	<i>Yacine Haddad</i> 17:30 - 17:50
18:00	<b>STXS EFT interpretation</b> <i>Online only</i>	<i>Ana Rosario Cueto Gomez</i> 18:00 - 18:20
	<b>Higgs boson cross sections across a wide range of masses: use cases and plans</b> <i>Online only</i>	<i>Fabrizio CAOLA et al.</i> 18:30 - 19:00