

# LHC Higgs Cross Section WG BR Subgroup Meeting

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*The BR subgroup*

with contributions of G. Passarino, R. Tanaka

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BR Subgroup Meeting, October 8<sup>th</sup> 2014

- **Past:** prediction for the SM and BSM (in several scenarios) BRs including theoretical and parametric uncertainties *See Michael's talk*
  - Information on partial widths available (for error correlations)
  - All documented in the three Yellow Reports and reported on the TWiki pages
- **Future:** What should we include to improve the predictions? *topic of today meeting!*
  - Update calculations with a new set of input parameters? (*general issue*)
  - New version of HDECAY, including Dalitz decay *See Michael's talk*
  - Which rare decays should become relevant for Run II?
  - Anomalous couplings in Prophecy4f?
  - New BSM scenarios?
  - BRs into SUSY particles to be explicitly calculated?
  - Uncertainties in BSM (MSSM?) decays

## Wednesday, 8 October 2014

- 10:00 - 10:20 **Introduction 20'** 
- Speakers: Ansgar Denner (Bayerische Julius Max. Universitaet Wuerzburg (DE)), Sven Heinemeyer (CSIC (Santander, ES)), Ivica Puljak (Technical University of Split FESB), Alexander Mueck, Daniela Rebuffi (INFN Pavia and Pavia University)
- Material: [Slides](#) 
- 10:20 - 10:40 **Decays of SM-like Higgs boson in the Georgi-Machacek model 20'** 
- Speaker: Prof. Heather Logan (Carleton U.)
- 10:40 - 11:00 **Rare Higgs decays to probe the couplings of the Higgs 20'** 
- Speaker: Stoyan Emilov Stoynev (Northwestern University (US))
- 11:00 - 11:20 **Discussion 20'** 
- Speaker: All