Welcome

LHC DM WG meeting, 30th November 2021
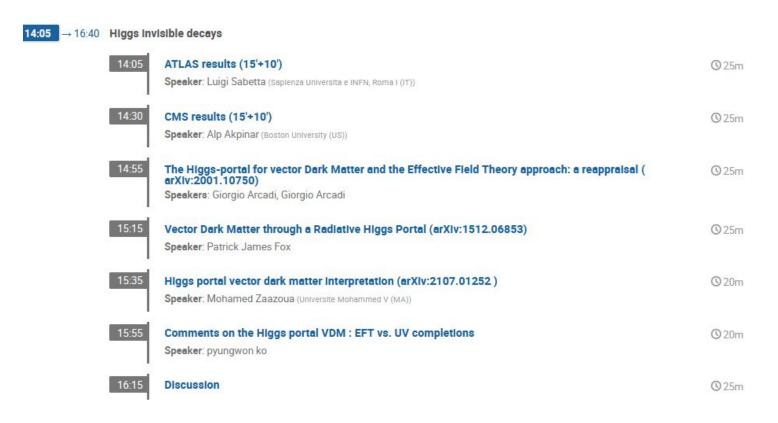

The LHC DM WG convenors
lhc-dmwg-admin@cern.ch

The [LHC DM WG](LHC DM WG)

- Defines DM search benchmarks and interpretations.
- Publishes white papers codifying these.
- Encourages and facilitate discussion across the LHC experiments and theory.
- Develop and follow relevant tools, and precision calculations for signals and backgrounds.
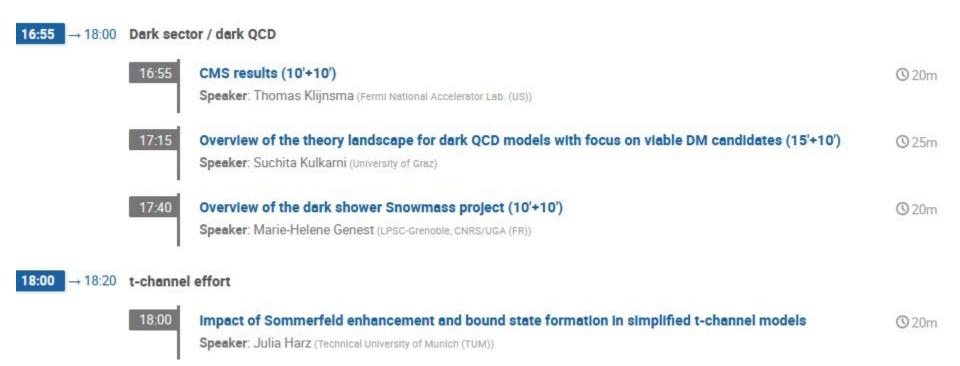- Interfaces with theory and other experimental dark matter searches.

- Mailing lists:
  - lhc-dmwg-contributors@cern.ch - open for all subscribers to post
  - lhc-dmwg-admin@cern.ch - reach out to the convenors (ATLAS: Oleg Brandt, James Frost, Priscilla Pani; CMS: Phil Harris, Matteo Cremonesi; LHCb: Xabier Cid Vidal; Theory: Uli Haisch, Tim Tait)

Today's Agenda I

Review recent invisible Higgs results - and a more theoretical focus on the vector WIMP interpretation

16:55 → 18:00 **Dark sector / dark QCD**

> **16:55** **CMS results (10'+10')**   🕐 20m
> Speaker: Thomas Klijnsma (Fermi National Accelerator Lab. (US))

> **17:15** **Overview of the theory landscape for dark QCD models with focus on viable DM candidates (15'+10')**   🕐 25m
> Speaker: Suchita Kulkarni (University of Graz)

> **17:40** **Overview of the dark shower Snowmass project (10'+10')**   🕐 20m
> Speaker: Marie-Helene Genest (LPSC-Grenoble, CNRS/UGA (FR))

18:00 → 18:20 **t-channel effort**

> **18:00** **Impact of Sommerfeld enhancement and bound state formation in simplified t-channel models**   🕐 20m
> Speaker: Julia Harz (Technical University of Munich (TUM))

- Introductory discussion of dark sector/QCD models
- New result on t-channel models
- **Enjoy the meeting! Best wishes for the Christmas break!**