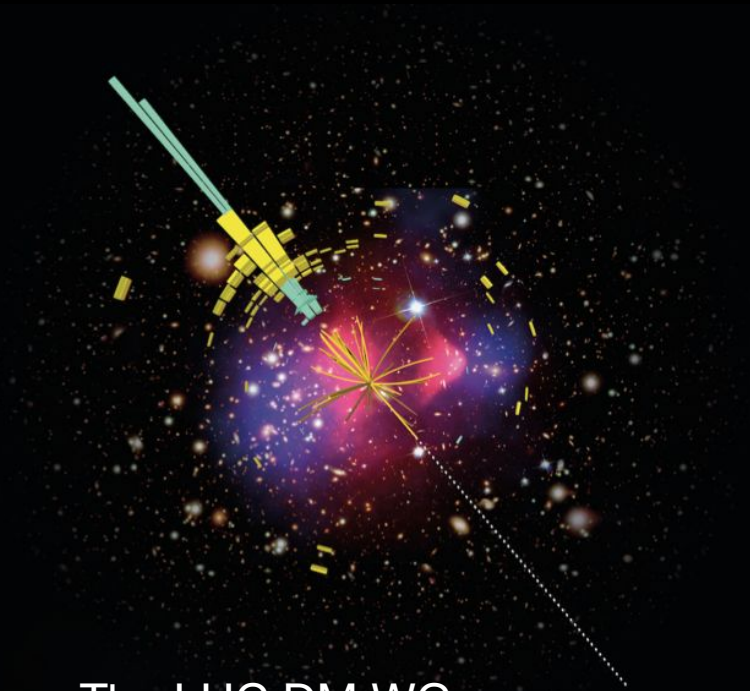


Welcome

LHC DM WG meeting, 30th November 2023



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

- 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: Spyros Argyropoulos, Zirui Wang, James Frost; CMS: Matteo Cremonesi; LHCb: Daniel Johnson, Xabier Cid Vidal; Theory: Uli Haisch, Tim Tait)

Today's Agenda I

14:15 → 14:35 **Update on DM t-Channel Signatures [20+10]**

🕒 20m



14:45 → 15:00 **Preparing the DM roadmap workshop - areas to contribute [15+10]**

🕒 15m



<http://cern.ch/lhcdm24>

15:10 → 15:30 **Summary of the "Colours in darkness" dark showers workshop [20+5]**

🕒 20m



<https://indico.mitp.uni-mainz.de/event/377>

Speaker: Sukanya Sinha (University of Manchester (GB))

Review recent activities - within the WG and external relevant workshops

Save the date: **13-17 May** - [Roadmap Workshop](#)

- benchmarks for Run-3
- signatures which have not been explored
- ways to improve the interpretations of currently used DM benchmarks
- interplay with other experiments

More details in later talk!

Today's Agenda II

- Part II of our review of high-mass Dark Higgs searches

15:35 → 16:45 Dark Higgs

15:40

Searches for low mass dilepton resonances and their interpretation [15+10]

<https://atlas.web.cern.ch/Atlas/GROUPS/PHYSICS/CONFNOTES/ATLAS-CONF-2023-045/>

Speaker: Even Simonsen Haaland (University of Oslo (NO))

 ZpMET_LHCDMWG...

🕒 25m

16:05

CMS Dark Higgs Search In the WW Channel [15+5]

Speakers: Alicia Calderon Tazon (Universidad de Cantabria and CSIC (ES)), Alicia Calderon tazon

🕒 20m

16:25

Hadronic Mono-W' Probes of Dark Matter at Colliders [15+5]

<https://arxiv.org/abs/2311.13578>

Speaker: Kun Cheng (Peking University)

🕒 20m

14:50 → 15:10 Dark Higgs

14:50

ATLAS Dark Higgs Search In the WW Channel [15+5]

Speaker: Mr Changqiao Li (Shanghai Jiao Tong University (CN))

 Dark Higgs at 2023 ...

🕒 20m

- cf. Part I [last meeting](#)

- **Enjoy the meeting! Best wishes for the winter break!**
- **Next meeting in spring (March).**