

Dark showers Snowmass LOI

Introduction

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A reminder of our plans



- A number of meetings with interesting discussions and presentations since the start of the project. Link to all meetings is [here](#)
- With our LOI, we aim to contribute a whitepaper to the Snowmass process
 - Content:
 - Phenomenological studies of currently-used LHC jetty benchmarks
 - Baseline: Prompt dark jets, semi-visible jets, emerging jets
 - Extra, if people are interested/time allows: SUEP, trackless jets
 - Mostly towards answering the following questions: how model-dependent are our searches and how can we improve? How can we catch more models with reasonable sensitivity, at future colliders/HL-LHC?
 - Summary of ongoing work within the group (see next slide)
 - Connect to Theory Frontier review if available, LLP whitepaper
- Whitepaper timescale → see next slide

Snowmass schedule



- See Announcements page: <https://snowmass21.org/announcements>

The new Snowmass timeline includes:

- Preliminary Topical Group Reports – Spring 2022
- Preliminary Frontier Reports – late Spring 2022
- Snowmass Community Summer Study – Summer 2022 in University of Washington, Seattle
- Snowmass Book – October 2022

The deadline for contributed papers will be delayed but the specific date will be decided by January 2021. Originally scheduled frontier-level Spring 2021 workshops will be moved to later times.

In January 2021, each Frontier will communicate with their own and related frontier communities to develop a detailed work plan. While our goal is to have uniformity among the frontiers, we will provide some flexibility to accommodate specific needs from various groups. Frontier plans will be established by January 31, 2021 and will be available at Snowmass wiki page.

- Reasons: COVID-19, delay in projects...
- Questionnaire on how it affects you:
<https://forms.gle/ymQ1p42Au7gYUdfa7>

What the changes mean for us



- We are still waiting to see if the Topical Groups will be recommended to pause their meetings, or go at a slower pace
- Since there are good reasons to do either of the two, in this group (and the general recommendation we've heard so far) we suggest to:
 - Keep working towards the whitepaper if you'd like to do so
 - Let us (SK, MHG, CD as EF10 convenor) know if you were counting on the whitepaper to be public for e.g. thesis and we'll find solutions
 - We will keep having meetings every 3 weeks in the same timeslot as a way to present work and discuss
 - It's good to have more time to think
 - **OR** take a break if you/your group would like to do so
 - We want to make sure this is as OK as deciding to continue to work on these topics
 - There are no decisions to take until Snowmass decision on pause/slow-down
 - There will be summaries of what has happened so far, and room to contribute for everyone who is coming back in