

# Joint meeting EF9/EF10 on dark showers

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# Dark showers from theory to experiment

- What kind of **theory models** can be **constructed** and what is their **connection with dark matter**?
- How can such models be **explored at colliders**?
- Do we have enough connections between theory, experiments and phenomenology to systematically cover this ground?
  - **Theory**: abstract model development
  - **Phenomenology**: connections with experiments via suggesting new signatures, analyses strategies and availability of simulation tools
  - **Experiment**: development of analysis, new triggers etc.
- **Develop a collective and systematic approach** to explore dark showers to illuminate dark matter
- Lots of opportunities including for early career researchers

# Involvement for Early Career Scientists

- The **Snowmass Early Career** effort has been started to give a platform to more junior researchers and make contributing easier.
  - EF meetings are held bi-weekly to spread information and awareness of opportunities between the topical groups.
  - Subscribe to [SNOWMASS-EARLY-CAREER-EF@FNAL.GOV](mailto:SNOWMASS-EARLY-CAREER-EF@FNAL.GOV) for communications
- It's easy to be overwhelmed by everything that's going on in Snowmass, with dark matter and more broadly. We're here to help!
  - Have an idea for a study, or want to get involved but not sure exactly how? Get in touch!
  - We also have a [survey](#) open to gather interests and help you find a project if you're looking for one.
- **EF10 Early Career liaisons:** Bill Balunas & Suchita Kulkarni
  - Full list of topical group liaisons with contact info can be found [here](#).