

Muons at Snowmass



Muon Dept Meeting
R. Bernstein 30 April 2020

Frontiers

wiki: <https://snowmass21.org>

1. Energy

2. Neutrino

3. *Rare Processes and Precision* ← we live here

4. Cosmic

5. Theory

6. Accelerator

7. Instrumentation

8. Computational

9. Underground Facilities

10. Community Involvement

Topics/People

- RPF co-conveners: Marina Artuso (LHCb, Syracuse; RHB; Alexey Petrov, theorist WSU)



Marina Artuso (Syracuse U.)



Alexey Petrov (Wayne State U.)

Weak Decays of B and C	Stefan Meinel	Angelo di Canto
Strange and Light Quarks	Emilie Passemar	Evgueni Goudovski
Fundamental Physics and Small Experiments	Peter Winter	Tom Blum
Baryon-Lepton Number Violation	Pavel Fileviez Perez	Andrea Pocar
CLFV	Bertrand Echenard	Sacha Davidson
Dark Sector at Low Energies	Stefania Gori	Mike Williams

← g-2, EDMs,
muonium-
antimuonium

Liaison to Accelerator, Neutrinos: RHB
Instrumentation: Artuso Theory: Petrov

Schedule

Letters of Interest (submission period: April 1, 2020 – August 31, 2020)

Letters of interest allow Snowmass conveners to see what proposals to expect and to encourage the community to begin studying them. They will help conveners to prepare the Snowmass Planning Meeting that will take place on November 4 - 6, 2020 at Fermilab. Letters should give brief descriptions of the proposal and cite the relevant papers to study. Instructions for submitting letters are available at <https://snowmass21.org/loi>. Authors of the letters are encouraged to submit a full writeup for their work as a contributed paper.

Contributed Papers (submission period: April 1, 2020 – July 31, 2021)

Contributed papers will be part of the Snowmass proceedings. They may include white papers on specific scientific areas, technical articles presenting new results on relevant physics topics, and reasoned expressions of physics priorities, including those related to community involvement. These papers and discussions throughout the Snowmass process will help shape the long-term strategy of particle physics in the U.S. Contributed papers will remain part of the permanent record of Snowmass 2021. Instructions for submitting contributed papers are available at <https://snowmass21.org/submissions/>.

Workshops

Various workshops will be organized by Frontier Conveners between the 2020 Snowmass Planning Meeting (Nov. 4 - 6, 2020 at Fermilab) and the 2021 Snowmass Summer Study (July 11 - 20, 2021 at UW Seattle). Workshop locations will be chosen to maximize “inclusiveness” based on accessibility and economic consideration. For all the meetings and workshops, we will make sure that we are inclusive to those who participate remotely and we will have a special session to discuss APS efforts for openness and the importance of open international collaboration.

RPF Schedule

- we are planning an RPF workshop in March 2021, but don't want to plan too much now given COVID
- may have a virtual meeting after LOIs are in

COVID and Snowmass

- Lots of people are asking if we're still going to have Snowmass in July 2021
- Natural question
- Answer is we're certainly aware of reality and are thinking about what to do
 - has ripples to funding agencies, etc so this is a hard problem but we're not blind either
 - too early to decide, early enough to be thinking

Communication

- Wiki: “one-stop shopping”:
 - <https://snowmass21.org>
 - Frontier Calendar
 - pages for each Topical Group
- Slack
 - chats and discussions
 - slack channels for each topical group
- Doc-db
 - anything that needs saving
 - LOI’s, etc.
- Indico
 - FNAL Indico site
 - we would prefer talks in doc-db linked to Indico, but meetings should have minutes saved to wiki through doc-db
 - we can’t enforce uniformity but the fewer platforms the better
- email
 - for really important things only
 - already too many emails!!
- Any questions, you know where to find me

Muon Efforts So Far

- Mu2e-II task force formed to bring plans to Snowmass
- Also started discussions with MEG collaborators and Mu3e (both unofficial) about moving program here in upgrade using PIP-II beam
- Semertzidis wants to write LOI for accelerator EDM
- Talking with PSI about participation

Upcoming

- Meeting of co-conveners this afternoon to plan first RPF all-topical-convenor meeting
- Expect brief presentation and introductions
 - we're not like neutrinos where everybody knows everyone else already
 - also not like EF where they're all linked and used to building these structures
- Will talk about Bids for Frontier Workshop in March