

Snowmass Instrumentation Frontier Group

Petra Merkel

Muon Department Meeting

April 30, 2020

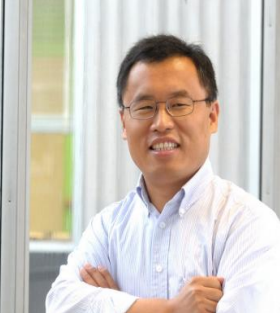
Instrumentation Frontier



Phil Barbeau
Duke



Petra Merkel
Fermilab



Jinlong Zhang
Argonne

Topical Group	Co-Conveners		
Quantum Sensors	Thomas Cecil (ANL), Kent Irwin (SLAC), Reina Maruyama (Yale), Matt Pyle (Berkeley)		
Photon Detectors	Juan Estrada (FNAL)	Mayly Sanchez (ISU)	Abigail Viereggs (Chicago)
Solid State Detectors and Tracking	Tony Affolder (UCSC)	Artur Apresyan (FNAL)	Lucie Linsen (CERN)
Trigger and DAQ	Darin Acosta (Florida)	Wes Ketchum (FNAL)	Stephanie Majewski (Oregon)
Micro Pattern Gas Detectors	Bernd Surov (Temple)	Maxim Titov (SACLAY)	Sven Vahsen (Hawaii)
Calorimetry	Andy White (UTA)	Minfang Yeh (BNL)	Rachel Yohay (FSU)
Electronics/ASICS	Gabriella Carini (BNL)	Mitch Newcomer (UPenn)	John Parsons (Columbia)
Noble Elements	Eric Dahl (Northwestern)	Roxanne Guenette (Harvard)	Jen Raaf (FNAL)
Cross Cutting and System Integration	Jim Fast (PNNL)	Maurice Garcia-Sciveres (LBL)	Ian Shipsey (Oxford)

Logistics

- Email lists: [at]fnal.gov
 - SNOWMASS-IF-CONVENERS: communication with Jinlong, Petra, Phil
 - SNOWMASS-IF-TOPICAL-GP-CONVENERS: communication with all IF topical group conveners
 - SNOWMASS-INSTRUMENTATIONFRONTIER: communication with the whole group, all IF participants

Lists for each topical group in preparation
- Slack channels:
 - snowmass2021/#instrumentation
 - Snowmass2021/#instrumentation-group-conveners
- Indico space:
 - <https://indico.fnal.gov/category/1106/>
- Web page:
 - <https://snowmass21.org/instrumentation/start>

Workshops and Meetings

- Letters of interest arriving between now and end of August
- Planning an Instrumentation Workshop in late June
 - Review LOIs, solicit missing LOIs
- Community Planning Workshop: November 4-6 2020 at Fermilab
- Proposing joined workshops in Winter/Spring 2020/21:
 - Cosmic, Neutrino, Underground Facilities, Instrumentation
 - Energy, Accelerator, Computing, Instrumentation
- Regular monthly Instrumentation Frontier convener meetings monthly
- IF topical group meetings to be defined
 - Subscribe to email lists and slack channel, submit LOIs/White Papers, participate in meetings and workshops
- Synergy with CPAD
 - CPAD will organize interdisciplinary workshop(s): condensed matter, AI
 - Most recent CPAD report: <https://arxiv.org/abs/1908.00194>

Fermilab Instrumentation

- Snowmass related activities at Fermilab organized through SAC working groups
 - Instrumentation: STRATEGIC-PLANNING-DETECTORS[at]fnal.gov
- Next meeting next week 5/8, 1-3pm to survey all planned white paper submissions
 - <https://indico.fnal.gov/event/24333/>

Community Contribution

- **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/>.
- **2013 Snowmass report:**
<https://www.slac.stanford.edu/econf/C1307292/docs/Instrumentation.html>