

# IF03: Solid State Detectors and Tracking

Artur Apresyan, Lucie Linssen, Tony Affolder

*October 1, 2020*

*Bi-weekly IF03 Solid State Detectors and Tracking*



1

10/01/20 A. Apresyan, L. Linssen, T. Affolder



UC SANTA CRUZ

# Snowmass Community Planning Meeting

- The CPM meeting will happen next week, Oct 5-8
  - Agenda posted here: <https://indico.fnal.gov/event/44870/>
- We encourage broad participation in discussions
  - The goal of CPM is to build a plan for beyond the CPM: how to arrive at the final report
  - Inter-frontier communications; build collaborations
  - Crystallize a few white papers out of the many LOIs
  - Some sessions have presentations, some are more discussions-oriented
- Discussions still ongoing on how to get to the final report, timeline, intermediate steps, structure and goals of final report
  - Community participation in steering this is crucial

# Introductory and final sessions

- IF introductory session
  - Tuesday 11:00 – 12:00 CDT, Zoom #9
    - Brief intro of goals for CMP (Jinlong Zhang)
    - CPAD presentation (Karsten Heeger)
    - LOI summary (Phil Barbeau)
- IF planning session
  - Wednesday 15:00 – 16:00 CDT, Zoom #9
    - A few presentations by co-organizers of key EF, RF, NF, CF breakout sessions

# IF Breakout Sessions - Tuesday

- **(130)** *Enabling technologies for low mass and ps timing detectors*
  - Tuesday 11:30 – 12:30 CDT, Zoom#12
- **(131)** Physics requirements for HEP detectors at colliders
  - Tuesday 12:30 - 13:30 CDT, Zoom#12
- **(118)** *Cross-community mobility in science*
  - Tuesday 13:00 – 14:00 CDT, Zoom#8

# IF Breakout Sessions - Wednesday

- **(54)** Machine Detector Interface for future colliders
  - Tuesday 13:30 – 14:30 CDT, Zoom#9
- **(26)** Energy Frontier discovery machines ( $>1$  TeV)
  - Wednesday 13:00 – 14:30 CDT, Zoom#1
- **(57)** Connection with industry and manufacturing
  - Wednesday 13:00 – 14:00 CDT, Zoom#8
- **(119)** HEP workforce, careers and training
  - Wednesday 13:00 – 14:30 CDT, Zoom#9

# Letters of interest received by IF03

- Following the CPM we will start forming the plan for summarizing all the work in a few white papers that will go into final report, and will start reaching out to contributors and participants in IF03 meetings
- We received 62 LOIs
  - Two main groupings: Experiments that include trackers, or generic tracker Technology LOIs
  - In several cases the LOIs submitted to IF03 fit into many categories (e.g. calorimeters, quantum, etc),
- Some common themes that emerge in these LOIs:
  - Studies focusing on physics motivations for a particular technology
  - 4D trackers, precision time + position; OR precision position + moderately good time
  - Monolithic integrated silicon detectors, CMOS, 3D integration
  - High rad tolerant sensors, radiation hardness
  - Mechanics and hybridization, integration aspects, light weight materials
  - Gaseous trackers, scintillating fibers, some fit more into MPGD
  - Several CEPC oriented proposals