

EC Report

Tim Nelson
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 Jefferson Lab

 SLAC NATIONAL ACCELERATOR LABORATORY

 University of New Hampshire

Stanford University

 INFN  SCIPP SANTA CRUZ INSTITUTE FOR PARTICLE PHYSICS UC SANTA CRUZ

 IPN INSTITUT DE PHYSIQUE NUCLEAIRE ORSAY  ODU

 A. ALIKHANYAN NATIONAL LABORATORY  University of Glasgow

 Stony Brook University

 U.S. DEPARTMENT OF ENERGY
Office of Science



 SLAC NATIONAL ACCELERATOR LABORATORY

Current Members:

- Cameron Bravo
- Alessandra Filippi
- Matt Graham
- Maurik Holtrop
- John Jaros (emeritus)
- Tim Nelson (chair)
- Rafayel Paremuzyan
- Stepan Stepanyan

Two terms are technically up at this meeting

- Cameron Bravo
- Rafayel Paremuzyan

We will plan elections for these positions for the next meeting.

Current Members:

- Andrea Celantano
- Rouven Essig
- Alessandra Filippi
- Matt Graham
- Robert Johnson

Next election is Spring 2025

EC Activity and Topics

EC activity has been limited, with only a few topics.

- membership for Sarah
- approval of Emrys's dissertation topic
- planning for PAC update and jeopardy review
- discussion of timing/planning for next run
- strategy for pursuing analysis of 2019/2021 data
- coordination appointments

Coordinators:

Analysis: Matt Graham, Cameron Bravo (deputy)

Calibration and reconstruction: **PF**

Monte Carlo: Tongtong Cao and Sarah Gaiser (deputy)

Software: Cameron Bravo

Detector: Tim (SVT), Nathan (ECal/Trigger), Stepan (Beamline)

Additional Material

Planning service work, membership, thesis topics



Students:

Alic Spellman (UCSC) dissertation topic approved: SIMPs. 10%

Tom Eichlersmith (UMN) Dissertation topic: SIMPs 100%. Also needs formal approval (had been thinking iDM)

Rory O'Dwyer (Stanford) dissertation topic approved: 2019/2021 SIMPs

Emrys Peets (SLAC/Stanford) dissertation topic just formally approved by Stanford: we need to approve also. (2019/21 resonance search, TM studies)

Sarah Gaiser (SLAC/Stanford): need to approve dissertation topic: 2019/2021 displaced

Lewis Wolf (UNH): Welcome! What's next?

Elizabeth Berzin (Stanford)!!

Postdocs and Scientists:

Abhisek Datta (UCLA): approved for a trial period - working to define requirements for a longer term involvement.

Planning for Next Meeting

Time flies. We should start planning our next collaboration meeting now.

In principle at SLAC in the winter.

Draft Plan for Students (OLD)

1. **Alic - Thesis: SIMP search of 2016 data, Service focus: 2019, 2021 track-cluster matching calibration, SVT calibration, tracking improvements**
 - Track-ECal Cluster matching (completed)
 - SVT pulse fitting improvements and calibrations (completed)
 - Help with checking KF tracking on 2016 data by comparing to ST/GBL
 - Study Møllers with KF tracks
 - Reach estimates for SIMPs (underway)
 - 2016 SIMP search result
2. **Tom - Thesis: IDM search of 2016 data?, Service focus: alignment and tracking improvements**
 - Debug KF alignment code and add some monitoring plots
 - Help with checking KF tracking on 2016 data by comparing to ST/GBL
 - Help get KF alignment working on 2019/2021 data
 - Fix phase space cut out in tritrig MC
 - Get IDM MC generation going and make reach estimate for at least 2016
 - IDM search strategy and reach
 - 2016 IDM search result
3. **Rory - Thesis: displaced searches with 2019/2021 data?, Service focus: svt hit formation**
 - SVT pulse fitting analysis and improvements
 - SVT clustering algorithm analysis and improvements
 - SVT time calibration and integration of time into track finding and fitting
 - Help with validation of reconstruction of 2019/2020 data
 - 2019/2021 SIMP and IDM search results?
4. **Emrys - Thesis: prompt A' search on 2019/2021 data? Service focus: combining track and ECal/hodo information**
 - Develop track-cluster and track-hodoscope matching selections
 - Develop improved event selection (improve/understand rad fraction)
 - Study Mollers in 2021 data (improve/understand global alignment and mass resolution)
 - Incorporate ECal energy measurement into e+/e- momentum estimate (improve mass resolution)
 - 2019/2021 A' search result - prompt
5. **Sarah - Thesis: displaced searches with 2019/2021 data?, Service focus: Monte Carlo improvements**
 - Alignment studies with MC
 - Characterization of SVT performance, including Data/MC comparison
 - Improvements to how we take into account efficiency issues
 - Development of search strategy (thinking in the direction of more generic search over full available phase space with model specific interpretations of that result)
 - 2019/2021 A' search result - displaced