

Particle Physics Faculty Meeting

- Agenda
 - News/Update
 - Peer Review Parallel Session



ALPHA BAE Hire

- Makoto and OSC met with Nigel Smith to discuss hire to next candidate
- No news to share yet

ACOT

- No formal feedback yet
- For Particle Physics from close out session: “Keep up the good work!”

New Initiatives

- [Particle Physics Planning](#) results in impact on existing and future experiments and
 - New initiatives under discussion in dedicated task forces
 - Center/platform/hub for detector development (with Science and Technology)
 - Center/platform/hub for AMO/Quantum/Precision/physics (HAICU, radioactive molecules, UCN...), across Particle & Nuclear Physics departments
- A ~2 page summary by end of November / early December
 - Detector development [writeup](#) in preparation
 - AMO/Quantum/Precision task force meeting next week
- Informal discussion with the director seems to indicate that there are considerations that might result that there will be some sort of LOI process TBC...

Peer Review Committee

Key information

- Dates:** Tuesday, November 29, 2022 – Thursday, December 1, 2022
- Format:** In-person; contingency for remote if required

3. **Questions:**

Theme(s)	Question for PRC
Scientific Excellence	1. To what extent is TRIUMF a platform for scientific excellence, including in its: <ol style="list-style-type: none"> knowledge creation (e.g., scientific publications, technology development) connector role (i.e., extent to which Canada's participation in TRIUMF connected Canada to the world in TRIUMF-related fields) infrastructure
Relevance	2. Is TRIUMF focusing on the right areas to stay relevant to the TRIUMF community and beyond?
Capabilities	3. To what extent does TRIUMF have the capacity, competencies and facilities needed to achieve its objectives moving forward?
Governance	4. To what extent is the governance of TRIUMF (e.g., committees, policies, and controls) effective / efficient? Are there any efficiencies to be gained? (taking into account the Canadian environment and system)

3. **Committee Members*:**

Name	Area of expertise	Title/Current Position	Location	E-mail Address
CHAIR Dr. Kimberly S. Budil	Engineer/physicist; organizational management	Director, Lawrence Livermore National Laboratory	USA (West)	kbudil1@llnl.gov lerson53@llnl.gov
Dr. Souzan Armstrong	Commercialization	Executive Director at WORLDiscoveries	Ontario, Canada	souzan.armstrong@wwo.ca
Dr. Simon R. Cherry	Nuclear Medicine	Distinguished Professor of Biomedical Engineering/Radiology at UC Davis	USA (West)	srcherry@ucdavis.edu
Dr. Alexandra Gade	Nuclear Physics	Professor of Physics, National Superconducting Cyclotron Laboratory, Michigan State University	USA	gade@nsl.msu.edu
Dr. Catherine Kallin	Molecular and Materials Science	Professor in Dept. of Physics & Astronomy at McMaster University	Victoria, BC, Canada	kallin@mcmaster.ca
Dr. Brad Sherrill	Accelerator physics	Professor of Physics at Michigan State University	USA	sherrill@trib.msu.edu
Dr. Elizabeth H. Simmons	Particle physicist; organizational management	Executive Vice Chancellor at the University of California San Diego.	USA (West)	ehsimmons@ucsd.edu ejinto@ucsd.edu
Dr. Frank Zimmermann	Accelerator physics / International lab	CERN, FCC study deputy leader	Switzerland	frank.zimmermann@cern.ch

* Pending possible changes

TRIUMF Tiger Team has been struck to manage the delivery of all documentation, presentations and material for the PRC. Meets weekly to oversee process. Currently working on agenda and talk definitions

Plenary	Plenary lead	Question 1: To what extent is TRIUMF a platform for scientific excellence? (knowledge creation, connecting role, infrastructure)	Question 2: Is TRIUMF focusing on the right areas to stay relevant to serve the needs of the TRIUMF community and beyond?	Question 3: To what extent does TRIUMF have the capacities, competencies, and facilities needed to achieve its objectives moving forward?	Question 4: To what extent is the governance of TRIUMF effective/efficient? Are there efficiencies to be gained?
Introduction	Kate Pachal	✓	✓	✓	
Overview	Nigel Smith	✓	✓	✓	✓
Particle Physics*	Isabel Trigger	✓	✓	✓	
Nuclear Physics*	Chris Ruiz	✓	✓	✓	
Accelerators*	Thomas Planche	✓	✓	✓	
Life Sciences*	Paul Schaffer	✓	✓	✓	
Materials Sciences*	Iain McKenzie	✓	✓	✓	
TRIUMF Innovations & Industrial Partnerships*	Kathryn Hayashi	✓	✓	✓	✓
Strategic Planning	Sean Lee	✓	✓	✓	✓
Governance & Management	Nigel + BoG representative	✓	✓	✓	✓

PSD engagement:

- Plenary talks (particle, nuclear, materials sciences)
- Parallel sessions (particle, nuclear, materials sciences)
- Poster session
- Site tour
- Researcher CVs

Prioritize if asked for help!

PRC

- Plenary session Tuesday November 29th in the auditorium
- Parallel sessions on Wednesday November 30th
 - Particle Physics 11:30 - 13:00 Theory room
- All talks 10+5min
 - Theory – Dave McKeen
 - Science and Technology + Detector development – Beatrice Franke
 - High Energy Frontier – Max Swiatlowski
 - Neutrinos and Dark Matter – Mark Hartz
 - Precision Tests of Fundamental Interactions – Ruediger Picker
 - Scientific Computing + Data Science – Wojtek Fedorko

PRC

- Parallel session talks are short, so will require focus
 - Complementary to what was already covered in Isabel's [Particle Physics plenary talk](#)
- Suggest the following layout
 - Short group composition for each experiment and personnel highlights (HQP highlights, leadership roles etc) that we want to mention (15-20%)
 - Accomplishments and research highlights over the past 4 years with an emphasize on focus projects (60%-70%)
 - Close with a brief future outlook/experiments/focus (15-20%)
- Petr requested final slides by **November 18th**
- **We will go through the slides next Thursday November 17th 12-2pm**
 - Tiger team will review and allow final touches before upload on November 25th

PRC

- Specifics for each talk (proposal)
 - Theory – Dave McKeen
 - Focus on theory department its connections and contributions/highlights
 - Some motivation for experiment as well that does not need to be duplicated in other slides ? - needs coordination among speakers
 - Science and Technology + Detector development – Beatrice Franke
 - Focus on SciTech contributions and department
 - Include Fabrice's detector development highlights, PHAAR etc
 - Environmental monitoring applications
 - Future: community building around detector development 4D3, MRS board, mention potential benefits for detector development center, P-ONE, ...
 - High Energy Frontier – Max Swiatlowski
 - General PP intro slides + ATLAS
 - Future: Future collider + DarkLight (best fit here?)

PRC

- Specifics for each talk (proposal)
 - Neutrinos and Dark Matter – Mark Hartz
 - T2K/Hyper-K, IWCD, SuperCDMS
 - Future: nEXO, DarkSide, ARGO, (P-ONE)
 - Precision Tests of Fundamental Interactions – Ruediger Picker
 - TUCAN, ALPHA, ALPHA-g, NA62
 - Future: PiENU & PIONEER, HAICU and UCN user facility, mention potential benefits for a Precision/AMO center
 - Scientific Computing + Data Science – Wojtek Fedorko
 - Tier-1, ML and QC projects
 - Future areas



AOB

Round Table

- ATLAS
- T2K/HyperK
- TUCAN
- ALPHA
- SuperCDMS
- DarkLight
- PIONEER
- NA62
- n-EXO / PHAAR
- SNO+
- HALO
- g-2
- Belle 2
- Theory