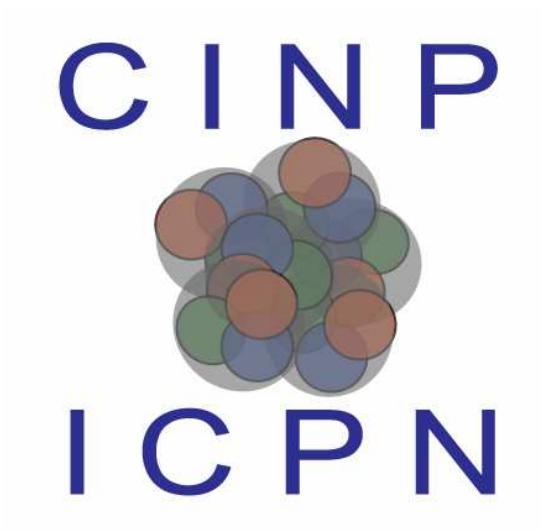


Canadian Institute of Nuclear Physics

Institut canadien de physique nucléaire

Garth Huber
Outgoing CINP Executive Director

2026 Individual Members AGM
June 26, 2025
Carleton University, Ottawa, ON

Agenda

1. **Guest Presentation**
   - Pan-Canadian MRS Coordination Board
     Jean-Francois Arguin (15)
2. **Outgoing Executive Director report (25)**
3. **Discussion Items (10)**
4. **Handover to New Executive Director (5)**
5. **Comments and Suggestions from Membership (5)**
6. **Adjourn**

What is the CINP?

- The CINP is a formal organization of the Canadian nuclear physics research community to promote excellence in nuclear research and education, and to advocate the interests and goals of the community both domestically and abroad.
  - Federally incorporated under the Canada Not–for–profit Corporations Act.
- Represents researchers covering all aspects of experimental and theoretical nuclear physics. Co–ordinates planning on a national scale and exchanges information within and between the various sub–fields of nuclear physics.
- Leads initiatives to strengthen the level and quality of nuclear physics research in Canada, including fellowships, undergraduate research scholarships, student travel awards, and targeted conference support.

CINP Membership Classes

INDIVIDUAL MEMBERS

- Open to any resident of Canada who has sufficient training and competence in the discipline of Nuclear Physics to enable the individual to play a significant role in the activities of the Institute.
- No dues or assessments.

INSTITUTIONAL MEMBERS

- Universities and laboratories which are actively involved in academic research in Nuclear Physics.
- Meet annually to elect the Directors of the Institute.
- Must pay annual dues as levied by the Board of Directors.

AFFILIATE MEMBERS

- Industrial corporations, charitable organizations, etc. with staff members who have expertise in Nuclear Physics.
- Recognition will be based on annual donations.
- Qualified staff members permitted to attend Institute activities.

CINP Governance

Institutional Members
McGill University
Memorial University of NL
Mount Allison University
Saint Mary's University
Simon Fraser University
TRIUMF
University of Calgary
University of Guelph
University of Manitoba
University of Northern BC
University of Regina
University of Winnipeg

Pay Annual Dues and Elect Board

Board of Directors
Svetlana Barkanova
Thomas Brunner
Olga (Liliana) Caballero
Gwen Grinyer
Russell Mammei
Chris Ruiz

Executive Director
Garth Huber

Treasurer
Greg Hackman

CINP Individual Membership

- **Incremental changes in membership since last year**
  - Net loss of 4 members
  - 3 new Faculty Members, offset by transfer of 3 Faculty to Associate
  - 11 new Associate Members (plus 3 transfers), and Renewal of 25 continuing members, offset by Removal of 18 who found permanent positions outside Canada or left field

New Faculty Members:
R. Bunker (SNOLAB)
T. Psaltis (Saint Mary's)
N. Yazdandoost (TRIUMF)

New Associate Members:
F. Aljarrah (Regina)
D. Asner (SNOLAB)
E. Cantacuzene (Regina)
S. Majidi (McGill)
A. Mendelsohn (Manitoba)
A. Ramasubramanian (Regina)
N. Sadoun (Regina)
A. Todd (McGill)
A. Tsantiri (Regina)
Tushar (Manitoba)
S. Wilson (Calgary)

As of May 15, 2026	Now	1 Year Ago	Change
Faculty Level	**93**	**93**	**+0**
Associate	**94**	**98**	**-4**
Experiment Major Interest	**141**	**145**	**-4**
Theory Major Interest	**44**	**44**	**+0**

Scientific Working Groups

Working Group	Members	Chair
Nuclear Astrophysics	73	**Nicole Vassh** (TRIUMF)
Nuclear Structure	73	**Paul Garrett** (Guelph)
Fundamental Symmetries	93	**Jeff Martin** (Winnipeg)
Hadrons/QCD	57	**Svetlana Barkanova** (Memorial)
Nuclear Theory	36	**Alex Gezerlis** (Guelph)
Nuclear Physics Education & Training	65	**Ruben Sandapen** (Acadia)

SWG Chair Duties:

- be main point–of–contact for SWG membership
- help facilitate CINP scientific program, e.g. contribute material to or suggest authors for the CINP website and newsletter, and help organize workshops
- help write the CINP Brief for input to the NSERC Subatomic Physics Long Range Plan, and to provide input on other CINP activities, such as the annual presentation at NSERC Large Projects Day and the AGM
- act as an advisor to the CINP Executive Director on related scientific issues, funding, and long range planning

CINP 2025–26 Accomplishments

- **Nuclear Physics Representation**
  - **The CINP is vital in giving the nuclear physics research community a coherent and strong voice**
  - **CINP presentation at SAPES Fall Orientation Session** on Dec 18
  - **Observer at Large Project Day on Feb 20**
    - Large Project Day is now entirely *in-camera*
  - **Input to NSERC on future SAPES membership**
  - **In-person meetings in Ottawa** (GH & IPP Director Carsten Krauss)**:**
    - Dec 8, 2025 with NSERC, CFI, Innovation Science and Economic Development Canada (ISED)
    - Additional meetings this week with CFI, NSERC, ISED
  - **Pan-Canadian MRS Coordination Board**
  - **Formal observer to NuPECC** (Nuclear Physics European Collaboration Committee

CINP role in 2027–34 Long Range Plan

- **CINP and IPP are co-sponsors of the LRP, and are tasked to consult with their respective communities following a fair and rigorous process:**
  - **CINP Town Hall Meeting @ CAP Congress: June 13, 2025**
  - **43 Briefs received by CINP**
  - **Brief writing committee met in person at TRIUMF in August to finalize the report**
  - **CINP Executive Director is also an ex–officio (non–voting) member of and resource to the LRP Committee**

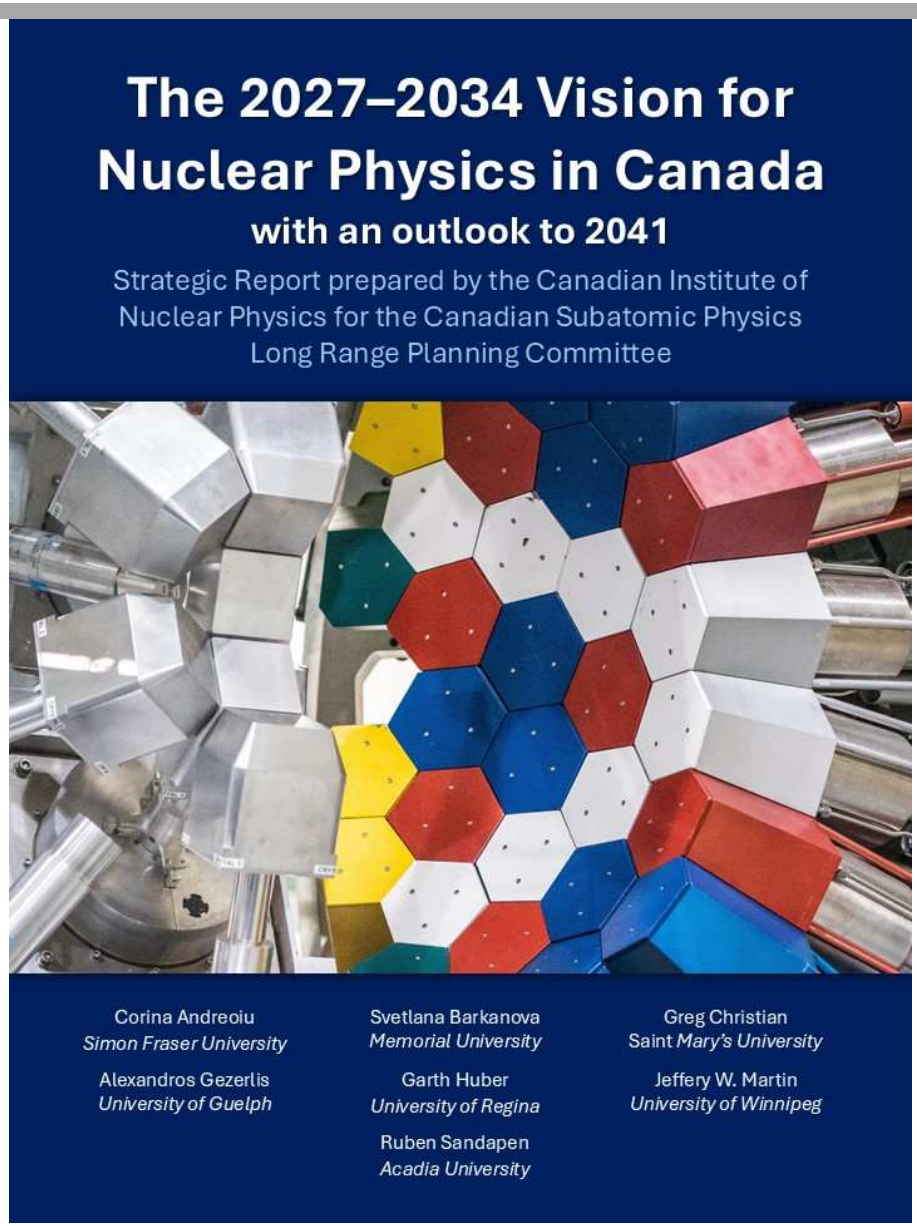
Brief writing meeting @ TRIUMF: Aug 5-7

CINP role in 2027–34 Long Range Plan

- **CINP and IPP are tasked to consult with their respective communities, and prepare Briefs to the LRP Committee, following a fair and rigorous process**
  - The CINP Brief must summarize the scientific vision and priorities of the Canadian nuclear physics research community, including both experimental and theoretical facets
- **CINP Brief writing committee consists of the six SWG Chairs with the Executive Director as lead editor**
  - Two SWG Chairs (P. Garrett, N. Vassh) were asked to serve on the SAP-LRP. We thank Greg Christian and Corina Andreoiu for agreeing to take their places on the CINP Brief Writing Committee

CINP role in 2027–34 Long Range Plan

- Two SWG Chairs (P. Garrett, N. Vassh) were asked to serve on the LRPC and could not help write the CINP report.
- **Thanks to the CINP Brief writing committee:**
  - Corina Andreoiu (Nuclear Structure)
  - Svetlana Barkanova (QCD/Hadrons)
  - Greg Christian (Nuclear Astrophysics)
  - Alex Gezerlis (Nuclear Theory)
  - Jeff Martin (Fundamental Symmetries)
  - Ruben Sandapen (Education & Training)
  - Garth Huber (Lead Editor)
- **CINP report available at: *https://cinp.ca/subatomic-physics-long-range-plan* and arXiv: 2602.22464**



CINP 2025–26 Accomplishments

- **CINP Undergraduate Research Scholarships (URS)**
  - A supervisor can nominate only their best student for the award.
  - $6k student stipend which must be matched by supervisor to at least $10k
  - Gifted international students studying in Canada are eligible to apply for the CINP URS, but not the NSERC USRA

- **16 applications were received**
- **Funds were only available for 6x$6000 awards**
  - **Funding rate much lower than the historic norm (~65%)**
- **Selection Committee: Alex Gezerlis (Guelph), Chris Ruiz (TRIUMF) GH**

- **Due to tight financial constraints on CINP's NSERC-MRS grant, the 5 year budget plan caps the URS at 6x$6000 awards through FY29 (next grant renewal)**
- **In addition, the URS Travel Supplement has been discontinued for FY26-29**

CINP 2025–26 Accomplishments

2026 CINP Undergraduate Research Scholarships

Student	Supervisor	Project Title
Bruce, Elspeth (Calgary)	Friesen, Timothy (Calgary)	Characterizing the ALPHA-3 microwave injection system for anti-hydrogen spectroscopy
Geith, Mackenzie (Toronto-Mississauga)	Longo, Savino (Manitoba)	TUCAN scintillation characterization
Miri, Parmida (UBC)	Behr, John (TRIUMF)	Highly polarized ^{40}K with improved duty cycle for time-reversal tests of ^{47}K
Reyno, Spencer (St Mary's)	Psaltis, Thanassis (St Mary's)	Impact of nuclear reaction rates on classical nova nucleosynthesis
Shickele, Taiki (UBC)	Holt, Jason (TRIUMF)	Calculation of NMEs responsible for light sterile neutrino contributions to 0νββ decay in ^{76}Ge
Thebault-Weiser, Justine (McGill)	Brunner, Thomas (McGill)	Investigation of a broad-mass laser-ablation ion source for fundamental nuclear science

CINP 2025–26 Accomplishments

- **2026–27 CINP Graduate Fellowship (GF)**
  - **Following an extensive discussion with CINP members at 2025 CAP Congress, numerous changes were made:**
    - Reduced fellowship award from $15k→$10k to enable more awards to be made
    - Simplified application process, introduce Narrative CV
    - Restricted number of awards a supervisor many nominate
  - **Awardee's supervisor or home institution must supplement the fellowship to a value of not less than $35,000**
  - In addition to academic and scientific criteria, the application has an EDI component, where applicants wrote a 1 page description of what role a PhD student and Graduate Fellow can play in promoting and advancing EDI in our community
  - **13 applications were received, funding rate of 23%**
  - **Selection Committee:** Ruben Sandapen, Chair (Acadia), Andrea Capra (TRIUMF), Gwen Grinyer (Regina)

CINP 2025–26 Accomplishments

2026–27 CINP Graduate Fellows

Samin Majidi (McGill)
Supervisor: Erica Caden
Development of instrumentation for rare-event searches. Her research focuses on the design, development, and characterization of an optical monitoring and calibration system for the nEXO outer detector, a water Cherenkov muon veto system.

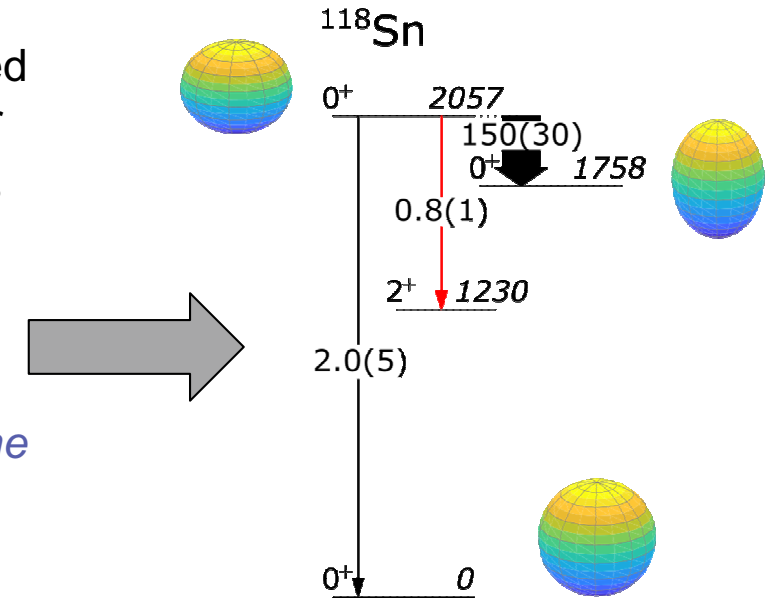
Dhruval Shah (McMaster)
Supervisor: Alan Chen
Measurements of $^{20}Ne(\alpha,\gamma)^{24}Mg$ reaction in inverse kinematics, heavy beam on a light target, using the DRAGON spectrometer at TRIUMF. This reaction plays an important role during quiescent helium burning in stars and during explosive helium and neon burning in supernovae.

Sean Wilson (Calgary)
Supervisor: Timothy Friesen
Development of a novel method to explore an unprobed transition in antihydrogen, comparing the ground-state hyperfine splitting (GS-HFS) of antihydrogen to that of hydrogen. The measurements will produce high precision tests of CPT symmetry with the bonus of sensitivity to nuclear effects.

2025 Graduate Fellow Report

- **Frank Wu (SFU)** *Supervisor: Corina Andreoiu*
- *^{118}Sn shapes unveiled from fast-timing measurements @ Institut Laue Langevin*

- The phenomenon of *shape coexistence*, once thought to be exotic, is now widely understood as a global feature that occurs in all but the lightest nuclei
- Semimagic Z = 50 Sn isotopes have retained on-going interest for shape coexistence because of the large number of valence neutrons above the $g_{9/2}$ (50) shell gap. Interaction with these valence neutrons reduces the energy cost of proton excitations across the $g_{9/2}$ shell gap, inducing deformations. As a natural continuation of the project, we investigated ^{118}Sn
- The experiment was performed at ILL, where the world's highest flux of continuous thermal neutrons at 10^8 n/cm2/s was delivered onto an isotopically enriched ^{117}Sn target. Nearly background-free $LaBr_3$ spectra for the transitions feeding into and decaying out of the 0^+_3 state in ^{118}Sn were obtained.
- *Three distinct shapes in ^{118}Sn supported by our measured enhancement in $\rho^2(E0)$ values and MR-CDFT calculations. Black arrows represent E0 transitions with $\rho^2(E0)$ values, while the red arrow is the E2 transition with the B(E2) value labeled in W.u..*



- For more details, please see the article in the May CINP Newsletter

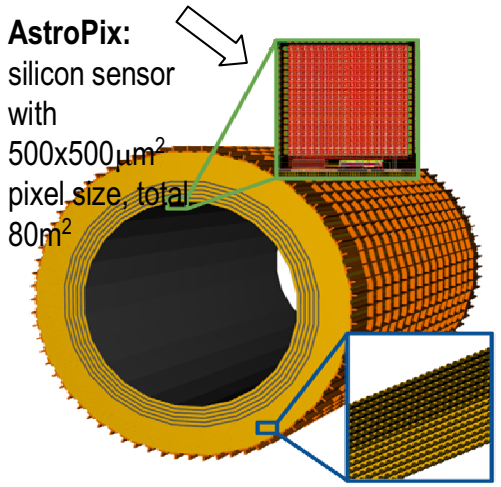
2025 Graduate Fellow Report

- **Akshaya Vijay (Manitoba)** *Supervisor: Wouter Deconinck*
- *Hybrid Clustering Algorithm for the Barrel Electromagnetic Calorimeter for EIC*

- The ePIC detector at the Electron-Ion Collider (EIC) has challenging calorimeter requirements including: precise measurements of electron energy and shower shapes for electron-pion separation in Deep Inelastic Scattering (DIS), and accurate photon energy and position measurements to identify isolated photons and photon pairs from π^0 decays.
- The calorimeter event reconstruction utilizes clustering algorithms to group detector hits into particle-level clusters, enabling reconstruction of energy and position.

  •**Topological clustering method:** hits are grouped using a breadth-first search (BFS) starting from high-energy hits and expanding to nearby hits based on spatial criteria.
  •**Island Clustering algorithm:** splits clusters if multiple peaks were identified in the spatial distributions of energy. Shared hits are distributed using energy-weighted methods, improving the separation of nearby particles.

•A hybrid clustering algorithm was implemented to combine both approaches by clustering AstroPix imaging and ScFi hits separately and then linking by hits across different systems, thereby improving overall event reconstruction performance.



- For more details, please see the article in the May CINP Newsletter

CINP 2025–26 Accomplishments

- **Community Outreach**
  - **CINP facilitates new connections and allows the disparate Canadian nuclear physics community to develop a common identity**
  - CINP website http://cinp.ca/ content added regularly
  - 2 Newsletters annually

CINP ICPN

Canadian Institute of Nuclear Physics
Institut canadien de physique nucléaire

Newsletter #19, November 2021

The Canadian Institute of Nuclear Physics (CINP) is a formal organization of the Canadian nuclear physics research community to promote excellence in nuclear research and education, and to advocate the interests and goals of the community both domestically and abroad.

1. CINP Board of Directors (2021-22)

The CINP Institutional Members had their annual meeting via teleconference on May 21, 2021. This was the first meeting that included our two new institutional members, SFU and MUN. One of the agenda items was to elect two Board members. There were no changes in Board membership, as both Gwen Grinyer and Chris Ruiz were re-elected to new 3 year terms.

The Board is listed below, along with their assigned responsibilities.

Name	Institution	Role	E-mail	Term Ends
Michael Gericke	University of Manitoba		mgericke @ physics.umanitoba.ca	June, 2023
Gwen Grinyer	University of Regina		gwen.grinyer @ uregina.ca	June, 2024
Sangyong Jeon	McGill University	Secretary	jeon @ physics.mcgill.ca	June, 2022

2. SAPES Large Project Day Changes

Large Project Day is an important event at the start of NSERC competition week. Traditionally, the day is divided into two parts, with presentations by CINP, IPP, TRIUMF, SNOLAB, Perimeter, McDonald, CFI, LRPC in the morning, and presentations by the principal investigators of large proposals (requesting an average of $500k/yr or more) in the afternoon.

To reduce their workload on this long day, the Subatomic Physics Evaluation Section (SAPES) has decided to move the first half of Large Project Day to a separate meeting in December (date not yet finalized). SAPES feels that having the input from the community institutes and laboratories prior to their reading the grant applications will help them gain a better perspective of the Canadian subatomic physics research environment. Thus, the traditional CINP presentation on The Breadth of Canadian Nuclear Physics Research at SAPES Large Projects Day is now in December rather than February.

CINP ICPN

Canadian Institute of Nuclear Physics
Institute Canadien de Physique Nucléaire

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Scientific Working Groups
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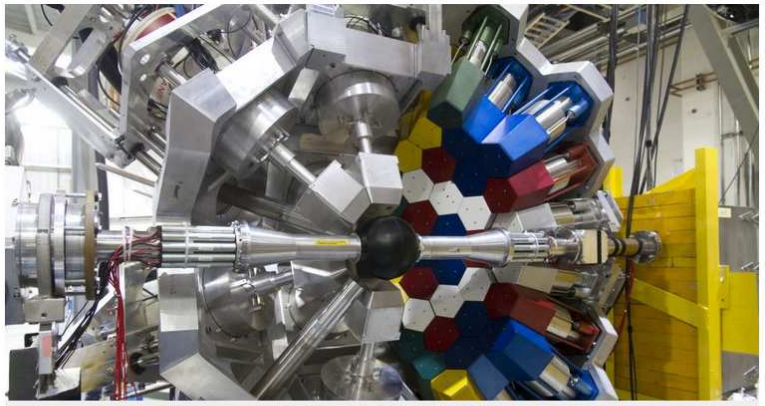
- Nuclear Astrophysics
- Nuclear Structure
- Fundamental Symmetries
- Hadronic Physics/QCD
- Education and Training

Important Links
- Subatomic Physics Long Range Plan
- NSERC News
- SAPES Chair Reports (2010-)
- GSC-19 Chair Reports (2001-09)
- IUPAP Working Group WG.9



GRIFFIN with DESCANT and SCEPTAR

The Canadian Institute of Nuclear Physics is a formal organization of the Canadian nuclear physics research community to promote excellence in nuclear research and education, and to advocate the interests and goals of the community both domestically and abroad.

CINP NSERC Expenditures
– Prepared by the two GHs

FY25 (preliminary)	
FY25 Installment	100,000
Conference Sponsorship	5,600
Student Conf Support	5,998
Undergrad Scholarships	36,000
URS Travel Supplement	3,900
Graduate Fellowships	30,000
Representation Travel	2,422
CINP Share of LRPC Cost	13,333
CINP Brief Expenses	15,581
Recruitment	1,750
Misc	615
FY25 Expenses	115,189

FY26 (budgeted)	
FY26 Installment	100,000
Conference Sponsorship	7,000
Student Conf Support	7,500
Undergrad Scholarships	36,000
Graduate Fellowships	30,000
Representation Travel	6,050
CINP Share of LRPC Cost	13,333
CINP Brief Expenses	1,070
Recruitment	2,250
Misc	1,000
FY26 Projected Expenses	104,153

CINP NSERC 5 Year Budget Plan
– Prepared by the two GHs

NSERC By Year					
	FY2025	FY2026	FY2027	FY2028	FY2029
NSERC Installment	**100,000**	**100,000**	**80,000**	**82,000**	**84,000**
Conference Sponsorship	5,600	7,000	7,000	7,000	7,000
Student Conf Support	5,988	7,500	7,500	7,500	7,500
Undergrad Scholarships	36,000	36,000	36,000	36,000	36,000
URS Travel Supplement	3,900	0	0	0	0
Graduate Fellowships	30,000	30,000	30,000	30,000	30,000
Representation Travel	2,422	6,050	4,100	4,200	4,350
LRP	28,914	14,403	0	0	0
Recruitment	1,750	2,250	2,250	2,250	2,250
Misc	615	950	770	790	810
Expenses	**115,189**	**104,153**	**87,620**	**87,740**	**87,910**
NSERC Total Expense	**(15,189)**	**(4,153)**	**(7,620)**	**(5,740)**	**(3,910)**
NSERC Account Balance	**18,217**	**14,064**	**6,444**	**704**	**(3,206)**

CINP Private Account
– Prepared by Greg Hackman

FY25 (preliminary)	
FY25 Dues assessed	$27,000
Executive Director	$24,000
Finance Expenses	
Audit	$3,885
Bank	$0
Industry Canada	$12
Total FY25 Expenses	$27,897
Surplus (Deficit)	($897)

FY26 (budgeted)	
FY26 Dues assessed	$26,000
Executive Director	$24,000
Finance Expenses	
Audit	$4,329
Bank	$0
Industry Canada	$12
Total FY26 Expenses	$28,341
Surplus (Deficit)	($2,341)

- CPA: Dudley & Company LLP, Regina

Agenda Items

4. Discussion Item:

Feedback from Graduate Fellowship Selection Committee

- The committee found that several of the applicants didn't provide a well-defined research plan. Students typically used this section to give an overview of the physics motivation, the overarching questions of their respective research collaborations, and why it's important.
- But many didn't describe very well what their specific role was in these larger collaborations and exactly what they will be doing for their research projects over the course of the 1 year of the proposed CINP grad fellowship.

Agenda Items

4. Discussion Item:

Feedback from Graduate Fellowship Selection Committee

- Proposed change in Application Instructions:

Part 6. Proposed Plan of Study and Research.

Describe the program of study and research you plan to undertake with the support of a CINP Fellowship. This statement should reflect your ability to think independently and creatively and to express thoughts about your academic interests and priorities accurately, thoughtfully, and concisely. Attach no more than two typewritten pages.

NOTE: Applicants should describe their *specific roles* within their collaboration/group and what they *personally will be responsible for* within their research projects over the course of the proposed CINP Graduate Fellowship. Please do *not* give *only* an overview of the physics motivation and overarching questions of your research, and why it's important.

Agenda Items

4. Discussion Item:

Feedback from Graduate Fellowship Selection Committee

- It's unclear how to rank the "Educational Objectives and Professional Goals" section of the applications, since some provided a very short-term perspective and others a very broad outlook.
- Proposed change in Application Instructions:

Part 5. Educational Objectives and Professional Goals.

Include a concise statement summarizing the objectives of your educational program for which fellowship support is requested and your long-term professional and scientific goals. *We are interested in seeing the maturity of thought you have put into your longer-term goals and plans.* Attach no more than one typewritten page.

Agenda Items

4. Handover to New Executive Director

Corina Andreoiu
Simon Fraser University
execdir@cinp.ca

5. Comments & Suggestions from Membership
6. Adjourn