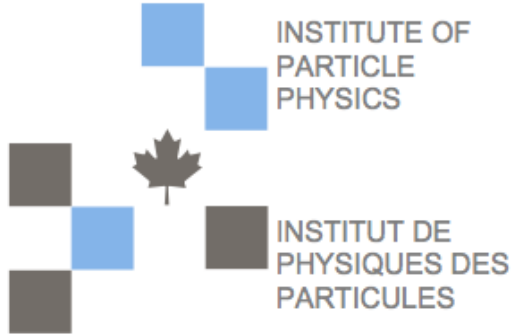


2015 Annual General Meeting of Individual Members

14-15 June 2015
Edmonton, Alberta



Agenda

- Adoption of Agenda
- Introduction to Long Range Plan
- Part 1 of Directors Report to IPP Members
- Tomorrow
 - Part 2 of Directors Report
 - Moving towards next steps in the Long Range Plan
- Minutes of 2013 IPP AGM:
 - Session 1: <http://indico.cern.ch/event/293589/session/192/?slotId=0#20140615>
 - Session 2:
<http://indico.cern.ch/event/293589/session/107/?slotId=0#20140616>

SUNDAY 14 June 2015

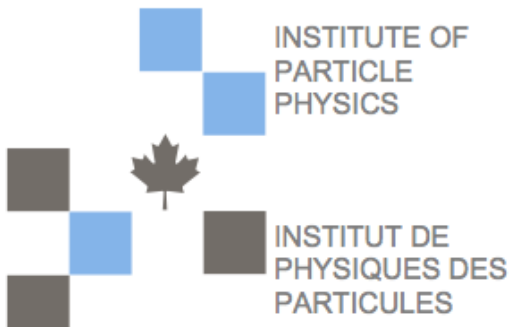
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|-------|---|---|
| 10:00 | Introduction-IPP Director's Report <i>NINT Taylor Room, University of Alberta</i> | <i>Michael RONEY</i>  10:00 - 10:20 |
| | Particle Astrophysics CFREF <i>NINT Taylor Room, University of Alberta</i> | <i>Prof. Tony NOBLE</i> 10:20 - 10:30 |
| | DEAP <i>NINT Taylor Room, University of Alberta</i> | <i>Mark BOULAY</i> 10:30 - 10:50 |
| 11:00 | SNO+ <i>NINT Taylor Room, University of Alberta</i> | <i>Prof. Christine KRAUS</i> 10:50 - 11:10 |
| | SuperCDMS <i>NINT Taylor Room, University of Alberta</i> | <i>Prof. Gilles GERBIER</i> 11:10 - 11:30 |
| | PICO <i>NINT Taylor Room, University of Alberta</i> | <i>Prof. Tony NOBLE</i> 11:30 - 11:50 |
| 12:00 | EXO <i>NINT Taylor Room, University of Alberta</i> | <i>Prof. David SINCLAIR</i> 11:50 - 12:10 |
| | NEWS Experiment <i>NINT Taylor Room, University of Alberta</i> | <i>Prof. Gilles GERBIER</i> 12:10 - 12:30 |
| | LUNCH <i>NINT Taylor Room, University of Alberta</i> | 12:30 - 13:00 |

SUNDAY 14 June 2015

| | |
|-------|--|
| 13:00 | IceCube Prof. Darren GRANT  <i>NINT Taylor Room, University of Alberta</i> 13:00 - 13:20 |
| | Theory review-Higgs, EW, BSM Dr. David MORRISSEY et al. <i>NINT Taylor Room, University of Alberta</i> 13:20 - 14:00 |
| 14:00 | Moller Experiment at JLAB Prof. Michael GERICKE <i>NINT Taylor Room, University of Alberta</i> 14:00 - 14:10 |
| | ALPHA Dr. Makoto FUJIWARA <i>NINT Taylor Room, University of Alberta</i> 14:10 - 14:20 |
| | UCN Prof. Jeffery MARTIN <i>NINT Taylor Room, University of Alberta</i> 14:20 - 14:40 |
| | Belle II Dr. Christopher HEARTY  <i>NINT Taylor Room, University of Alberta</i> 14:40 - 15:00 |
| 15:00 | HEPNET/Computing in HEP Randy SOBIE  <i>NINT Taylor Room, University of Alberta</i> 15:00 - 15:10 |
| | BREAK <i>NINT Taylor Room, University of Alberta</i> 15:10 - 15:30 |

SUNDAY 14 June 2015

| | |
|-------|---|
| | <p>MRS - Alberta/Toronto <i>Prof. James PINFOLD</i></p> <p><i>NINT Taylor Room, University of Alberta</i> 15:30 - 15:35</p> |
| | <p>MRS - Carleton/Victoria/Queens <i>Prof. Kevin GRAHAM</i></p> <p><i>NINT Taylor Room, University of Alberta</i> 15:35 - 15:45</p> |
| 16:00 | <p>NA62 <i>Dr. Toshio NUMAO</i> </p> <p><i>NINT Taylor Room, University of Alberta</i> 15:45 - 16:05</p> |
| | <p>Halo+upgrade at LNGS <i>Prof. Clarence VIRTUE</i></p> <p><i>NINT Taylor Room, University of Alberta</i> 16:05 - 16:20</p> |
| | <p>VERITAS <i>Prof. David HANNA</i> </p> <p><i>NINT Taylor Room, University of Alberta</i> 16:20 - 16:30</p> |
| | <p>g-2 at JPARC <i>Dr. Glen MARSHALL</i> </p> <p><i>NINT Taylor Room, University of Alberta</i> 16:30 - 16:40</p> |
| | <p>Theory Review - QCD <i>Prof. Randy LEWIS</i></p> <p><i>NINT Taylor Room, University of Alberta</i> 16:40 - 16:55</p> |
| 17:00 | <p>ATLAS <i>Prof. Alison LISTER</i></p> <p><i>NINT Taylor Room, University of Alberta</i> 16:55 - 17:25</p> |
| | <p>Technical support for experiment development and construction <i>Dr. Fabrice RETIERE</i></p> <p><i>NINT Taylor Room, University of Alberta</i> 17:25 - 17:35</p> |




MONDAY 15 June 2015

Joint Session with CINP

08:00

Report from NSERC SAP ES


John MARTIN 

CCIS L1-140, University of Alberta

08:30 - 09:05

09:00

Canada Foundation for Innovation and Subatomic Physics

Olivier GAGNON 

CCIS L1-140, University of Alberta

09:05 - 09:25

Report from TRIUMF Director

Jonathan BAGGER

CCIS L1-140, University of Alberta

09:25 - 10:00

10:00

Report from SNOLAB's Director

Nigel SMITH

CCIS L1-140, University of Alberta

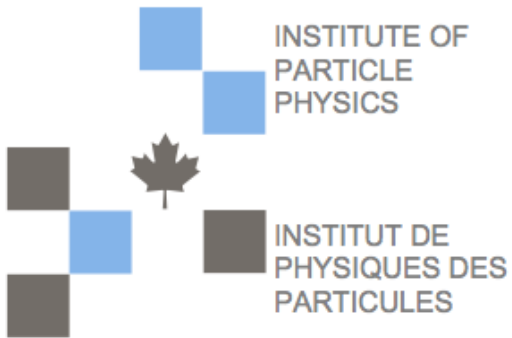
10:00 - 10:25

Report from Subatomic Physics Long Range Plan Committee Chair

Dean KARLEN

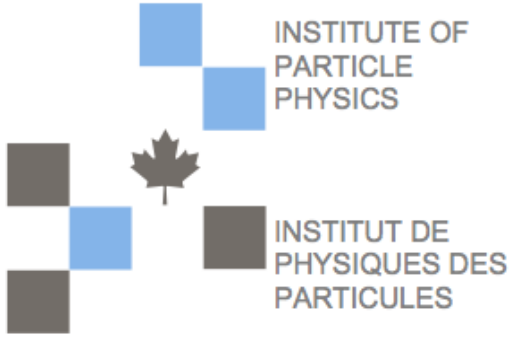
CCIS L1-140, University of Alberta

10:25 - 10:45



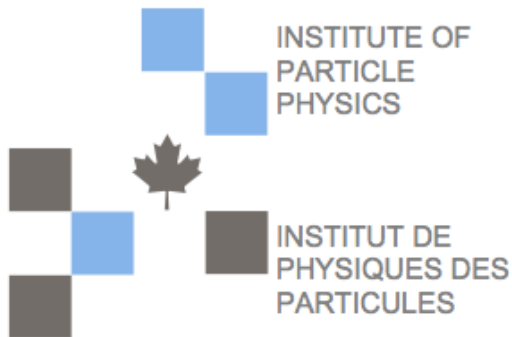
MONDAY 15 June 2015

| | | |
|-------|---|---|
| 11:00 | <p>Status and future plan of KEK and J-PARC</p> <p><i>CCIS L1-140, University of Alberta</i></p> | <p><i>Yasuhiro OKADA</i></p> <p>11:00 - 11:35</p> |
| | <p>T2K+HyperK</p> <p><i>CCIS L1-140, University of Alberta</i></p> | <p><i>Hirohisa A. TANAKA</i></p> <p>11:35 - 12:05</p> |
| 12:00 | <p>ILC</p> <p><i>CCIS L1-140, University of Alberta</i></p> | <p><i>Alain BELLERIVE</i></p> <p>12:05 - 12:25</p> |
| | <p>Long Range Plan: Next Steps for IPP</p> <p><i>CCIS L1-140, University of Alberta</i></p> | <p><i>Michael RONEY</i></p> <p>12:25 - 12:45</p> |



Introductory Comments

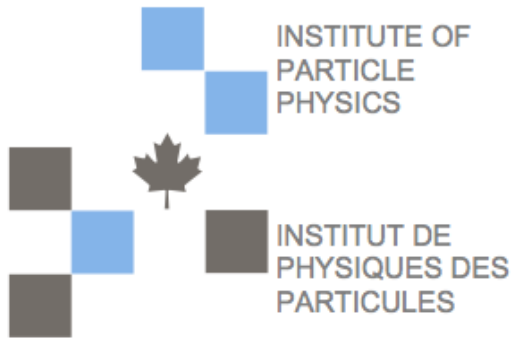
J. Michael Roney
IPP Director
14-15 June 2015
Edmonton, Alberta



Goals of 2015

IPP Town Hall / AMG

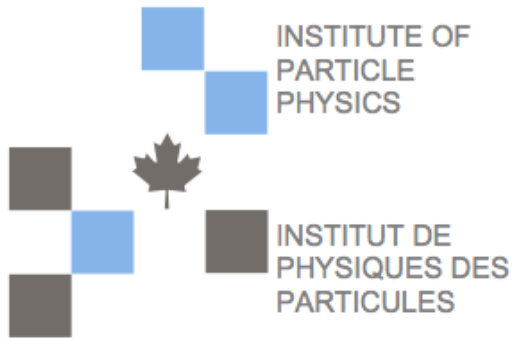
- Begin the process of preparing briefs for the IPP Input into the NSERC Subatomic Physics Long Range Plan
- Inform members of developments of interest to IPP
- Provide forum to establish and/or refresh professional relationships amongst members:
 - Encourage awareness of status of IPP Projects and other scientific opportunities
- Consider potentially new initiatives, including approaches to funding



Some Recent Developments of Interest to IPP

NSERC sponsored Subatomic Physics Long Range Plan:

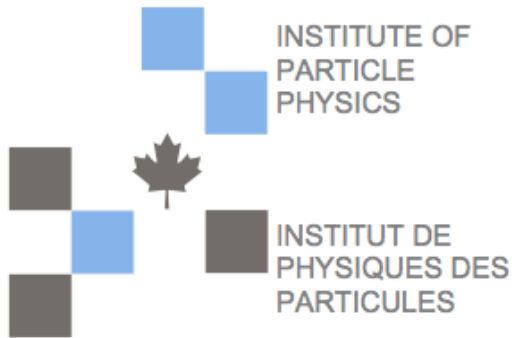
- covers the period 2017-2021
- kick-off meeting of the committee was this morning
- Consultation process of the community has started in IPP with this meeting
- CINF and IPP to prepare briefs that to be submitted by the fall of 2015
- LRPC to then lead the consultation of the community up to the summer of 2016
- The LRPC will be asked to submit its report to NSERC by the end of 2016



Some Recent Developments of Interest to IPP

Federal Funding of particular interest:

- TRIUMF:
 - \$222M TRIUMF base secured a year early in 2014;
 - TRIUMF requested \$68M more via the CAPTURE proposal to fulfill aspirations of TRIUMF 5 Year Plan
 - IPP Letters of support sent to PMO, Industry Canada, Finance – response was positive though non-committal
 - **2015 Budget awarded \$45M**
- Canada First Research Excellence Fund announcement in 2014:
 - “will provide a substantial investment, driving Canadian post-secondary institutions to excel globally in research areas that create long-term economic advantages for Canada.”
 - “50 million in 2015–16, growing to \$100 million in 2016–17 and \$150 million in 2017–18, and reaching a sustained level of \$200 million annually in 2018–19 and beyond”
 - To be in place for at least 10 years - we should treat as ~permanent
 - Peer review across all tri-council disciplines
 - Looking for transformational impact
 - Managed by SSHRC as it has the secretariat that takes care of all tri-council matters
 - **CFREF Application for Particle Astrophysics has been submitted in the first round: Queen’s is the lead institution, IPP is a supporting institution**
 - see Tony Noble’s talk this morning for details



CINP and IPP

- Joint CINP-IPP Session at CAP tomorrow morning
- IPP and CINP Directors: continuing to work together
 - Co-ordinate efforts to support subatomic physics
 - Promote subatomic physics in Ottawa:
 - 9 March 2015:
 - Pierre Charest (NSERC VP Grants & Scholarships) and Elizabeth Boston (NSERC Director, Mathematical, Environmental and Physical Sciences Division)
 - Guy Levesque (CFI Program Director)
 - Lawrence Hanson (Assistant Deputy Minister Industry Canada)
 - Consulting on LRP
 - Advisory Committee on TRIUMF

CINP communications to IPP

Garth Huber, Exec Director

CINP's LRP process



CINP Brief writing committee:

- Garth Huber *Executive Director, Lead Editor* huberg@uregina.ca
- Iris Dillmann *Nuclear Astrophysics SWG Chair* dillmann@triumf.ca
- Charles Gale *Hadrons/QCD SWG Chair* gale@physics.mcgill.ca
- Adam Garnsworthy *Nuclear Structure SWG Chair* garns@triumf.ca
- Gerald Gwinner *Fundamental Symmetries SWG Chair*
gerald.gwinner@physics.umanitoba.ca
- Juliette Mammei *Nuclear Education SWG Chair* jmammei@physics.umanitoba.ca

Preliminary written briefs submitted by: May 29

- Briefs are posted in member's area of CINP website for community review and comment.
- If you have a comment on any part of any brief, please contact one of the committee members.

Town Hall meeting: June 13-14

Final written briefs due: June 26

If you would like to submit a brief, but have not yet done so, please rest assured that we will consider all briefs received up to the final deadline of Friday, June 26. Although you are encouraged to attend the Town Hall meeting and participate in the discussions, you can submit a brief even if you are unable to attend.

CINP communications to IPP

Garth Huber, Exec Director

CINP's LRP process



June 26: Final written briefs due

July 2-31: Brief committee has weekly teleconferences to discuss and coordinate writing of assigned chapters of Brief

Aug 1: Early draft of Brief is compiled from assigned chapters

Aug 6-7: Committee members meet in person at TRIUMF to finalize CINP Brief

Aug 10-15: Final edits by Brief Committee

Aug 18: Draft brief is released to NP community for comment

Sept 4: Comments due from NP community on draft CINP Brief

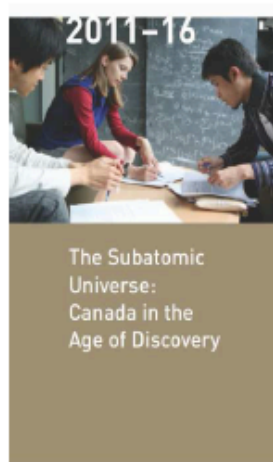
Oct 1: CINP Brief is officially released to LRPC

Dec 2015: CINP Brief is orally presented at LRP Town Hall Meeting

CINP communications to IPP

Garth Huber, Exec Director

Canadian Subatomic Physics LRP 2011-16: Priorities in Nuclear Physics



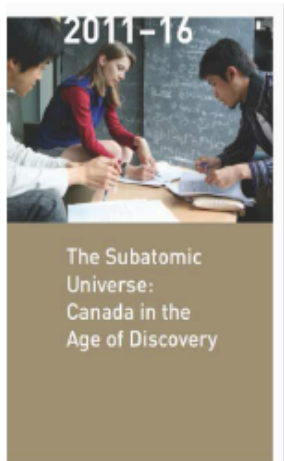
- Continue and expand full exploitation of TRIUMF's ISAC-I and ISAC-II facilities, with unique suite of measurement tools, including new spectrometers and devices.
- Support key experimental initiatives offshore where Canadians lead. Examples:
 - Jefferson Lab Halls D,C,A following 12 GeV Upgrade.
 - Canadian Penning Trap at Argonne.
 - ALPHA at CERN.
- Maintain a vibrant and diverse theoretical community pursuing the most actively pursued questions in nuclear physics.

CINP communications to IPP

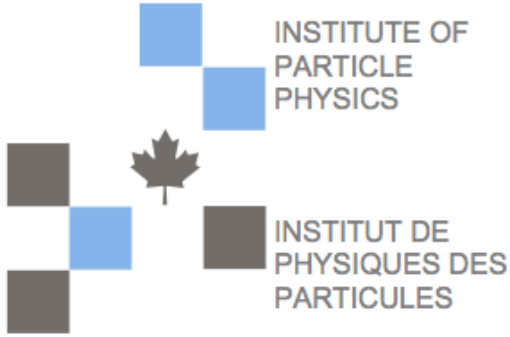
Garth Huber, Exec Director

Canadian Subatomic Physics LRP

2017-21: Upcoming Nuclear Physics Projects



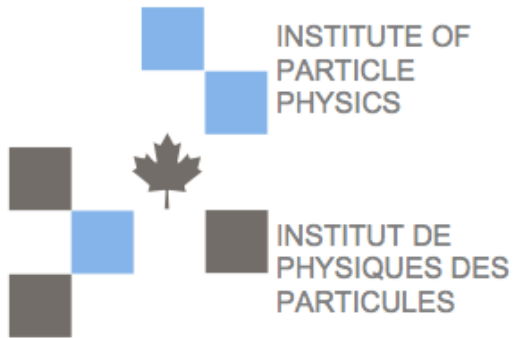
- Implementation of ARIEL project at TRIUMF, including second ISAC proton beam line and new actinide target stations, has tremendous potential for scientific discovery and advancement of the field.
- Movement of the Ultra-Cold Neutron (UCN) source from RCNP to TRIUMF would make it the world's most intense source of cold neutrons and allow the current limit on the neutron EDM to be improved by a factor of ~ 3 .



IPP Process for Long Range Plan

General call on April 20 to IPP Membership for input into the LRP, initially via this meeting:

- 11 IPP Projects going into the LRP timing window
- 5-6 other efforts that may be IPP Projects in the future
- some projects reporting have physics of interest in both CINP and IPP
- technical support needs: detector development support: MRS, TRIUMF; computing
- Theory activity related to experimental program



2010 IPP LRP

Brief Executive Summary

We review significant accomplishments of Canadian researchers, and offer a vision of the priorities for the community for the next five years.

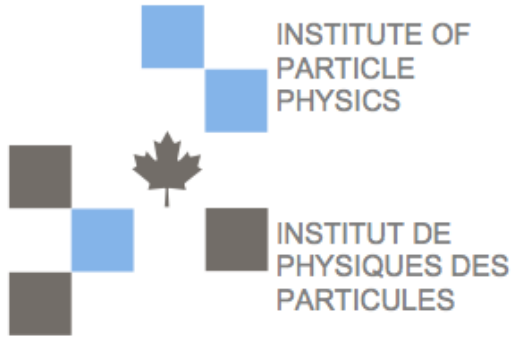
We identify four “essential” projects for the particle physics community in Canada over the next five years: ATLAS, DEAP, SNO+, and T2K.

We identify four additional projects that have the potential to achieve essential status within the Canadian community over this time period: EXO, PICASSO, SuperB, and SuperCDMS.

A long-term solution for funding SNOLAB operations outside the NSERC SAP envelope is identified as the most critical structural issue for Canadian particle physics.

We draw attention to the failure of the SAP envelope to grow in proportion to the growth of the community, funding limitations on TRIUMF’s ability to support new particle physics initiatives, and exploring a formal relationship between Canada and CERN.

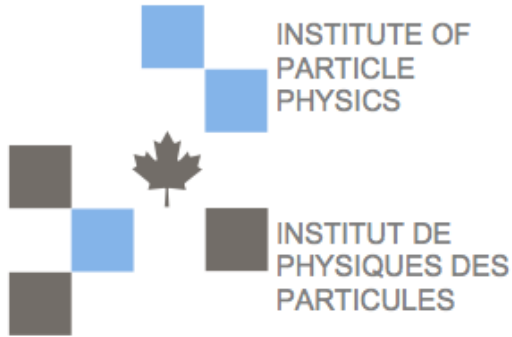
The IPP welcomes improved coordination between the different funding mechanisms available to particle physics researchers in Canada. This would be an important first step to addressing many of the structural issues discussed here.



IPP Process for 2016 Long Range Plan

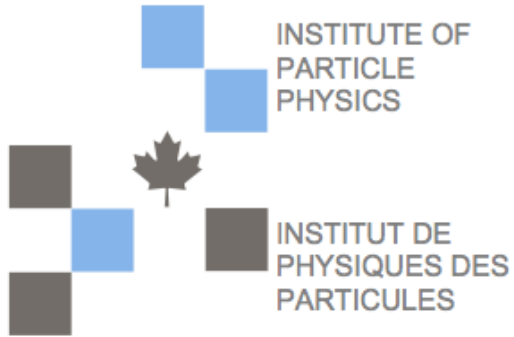
Projects asked to address in today's discussions the following in relation to the project in the period 2017-2021:

- (1) Physics and other research goals for the project;
- (2) Expected HQP training – numbers and role in the project;
- (3) Equipment needs – including cost estimates and time profile, whether NSERC or CFI will be requested for funds, other partners;
- (4) Computing requirements – CPU and storage, time profile;
- (5) Expected calls on technical support from TRIUMF, SNOLAB or the MRS facilities;
- (6) Relationships with other projects being conducted by Canadian subatomic physicists – either physics or technical;
- (7) Relationships with international partners.



IPP Process for 2016 Long Range Plan

- Community will see the ‘lay of the land’ this meeting
- Follow-up:
 - Written briefs from participants that discuss those seven points (due 10 July)
 - Also requesting for additional briefs from:
 - Formal theory community
 - Accelerator physics community on projects related to particle physics
 - Survey community for data on HQP training record in the past 10 years and compelling success stories of HQP after their training period, both in and outside the field
 - Consult community to develop broad priorities regarding resource allocation for particle physics in Canada

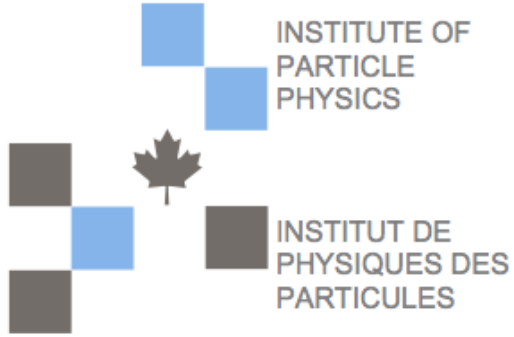


IPP Process for 2016 Long Range Plan

- Briefs, and other feedback, to be submitted to IPP Council by July 10
- IPP Council to compile briefs and produce working draft of IPP document by July 31, then circulate within Council: goal is to ensure it addresses all points in the request from the LRPC and accurately captures the input from the community
- Council to meet mid-August to finalize document – goal to circulate to the community by the end of August and solicit feedback from the community
- Plan for a ‘virtual’ IPP Town Hall meeting in mid-September to facilitate final community discussion and input to the document
- Finalize and submit on time scale consistent with deadlines agreed to with LRPC

Continue the discussions

- Think and talk about:
 - Your own future research interests going forward
 - What your priorities are for IPP, what is valued
 - RS Program; conference support; summer student program; ...
 - What do you see as the broad priorities regarding resource allocation for particle physics in Canada
 - Share them with IPP Council members
 - Consider opportunities further collaboration between individuals and projects
- This meeting provides first opportunity for formal input into 2017-2021 Long Range Plan for our community



IPP Director's Report 2015 Annual General Meeting of Individual Members Part I

J. Michael Roney
14-15 June 2015
Edmonton, Alberta

IPP Council

2014-2015 IPP Council

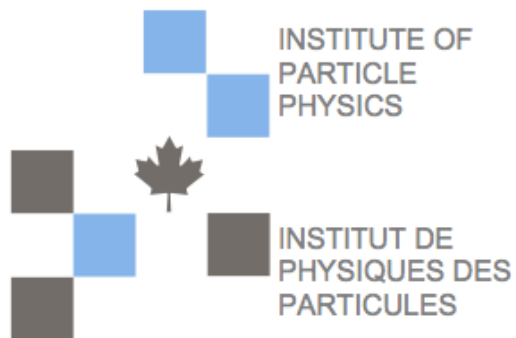
- Douglas Gingrich (2016) - Alberta
- Thomas Gregoire (2017) - Carleton
- Christine Kraus (2017) - Laurentian
- Peter Krieger (2016) - Toronto
- Wolfgang Rau (2014) - Queen's
- Oliver Stelzer-Chilton (2015) - TRIUMF
- Hirohisa Tanaka (2015) - IPP/UBC
- J. Michael Roney [Chair] (2018) - Victoria

IPP Council

2014-2015 IPP Council

- Douglas Gingrich (2016) - Alberta
- Thomas Gregoire (2017) - Carleton
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- Peter Krieger (2016) - Toronto
- Oliver Stelzer-Chilton (2015) - TRIUMF
- Hirohisa Tanaka (2015) - IPP/UBC
- J. Michael Roney [Chair] (2018) - Victoria

Many thanks to Oliver Stelzer-Chilton and Hiro Tanaka for their dedicated service over the past three years!



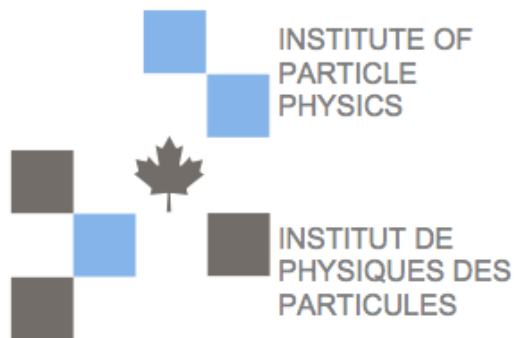
IPP Council Elections

Call for Nominations to Council announced April 30,
closed May 15

Candidates, in alphabetical order:

- Kevin Graham (Carleton)
- Blair Jamieson (Winnipeg)
- Fabrice Retiere (TRIUMF)
- Brigitte Vachon (McGill)

- Election took place electronically between May 16 and June 3
- 105 members cast at least one vote
- Votes were tallied by independent UVic staff



IPP Council Elections

Call for Nominations to Council announced April 30,
closed May 15

Candidates, in alphabetical order:

- Kevin Graham (Carleton)
- Blair Jamieson (Winnipeg)
- Fabrice Retiere (TRIUMF)
- Brigitte Vachon (McGill)

- Many thanks to all candidates for agreeing put your name forward in this election to serve the community in this way
- Strong slate once again demonstrating a vibrant, engaged community

IPP Council Elections

2015 IPP Council Election Results:

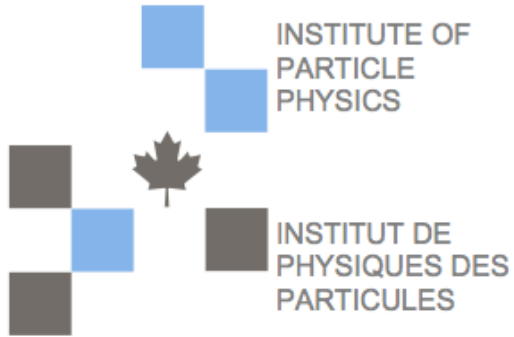
- Kevin Graham (Carleton) – 43 votes
- Blair Jamieson (Winnipeg) – 31 votes
- Fabrice Retiere (TRIUMF) – 56 votes
- Brigitte Vachon (McGill) – 73 votes

Welcome Fabrice Retiere and Brigitte Vachon to Council for the next three years

IPP Council

2015-2016 IPP Council

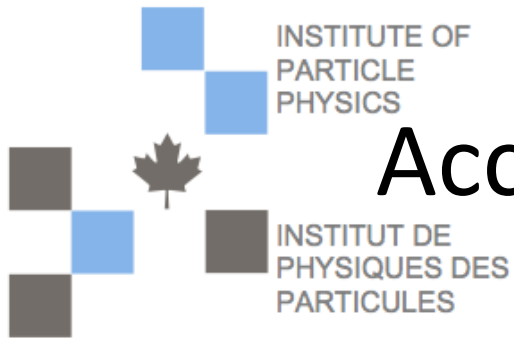
- Douglas Gingrich (2016) - Alberta
- Thomas Gregoire (2017) - Carleton
- Christine Kraus (2017) - Laurentian
- Peter Krieger (2016) - Toronto
- Fabrice Retiere (2018) - TRIUMF
- J. Michael Roney [Chair] (2018) - Victoria
- Brigitte Vachon (2018) - McGill



New IPP Projects

Since last IPP AGM the following IPP projects have been added:

- IceCube
- NA62



Access to Subatomic Physics Major Resource Support Facilities

■ Subatomic Physics Major Resources Support Facilities

Various resources that support Canadian subatomic physics experimental efforts are available to the community through the NSERC Subatomic Physics Major Resources Support (MRS) Program. Applications for use of the facilities should be directed to those operating the facilities as described below.

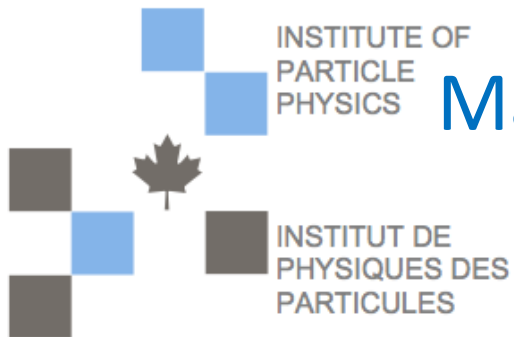
■ Carleton/Victoria Major Resources Support Facilities

The Carleton and Victoria SAP-MRS technical teams are available to support subatomic physics related detector development work. The resources include engineering design, hardware fabrication and installation, and data acquisition/simulation expertise. Access to the resources can be requested by contacting **Prioritization Board** representatives, **Dean Karlen** (Victoria) and **Gerald Oakham** (Carleton). Detailed information describing the capabilities of the groups is available via the **VISPA Research Resources** and **Carleton Technical Group for Instrumentation Development for Particle Physics Research** pages.

■ CPP+ Major Resources Support Centre

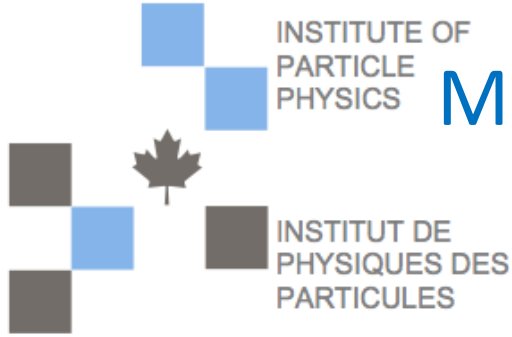
Based at the University of Alberta, the CPP+ MRS Centre is available to provide help with NSERC funded projects. Full details of the nature of available support is available on the **CPP+ Major Resources Support Centre website** and includes **CPP+ MRS Experts** as well as other facilities. Potential users who are members of the Canadian subatomic physics community are encouraged to apply to the **CPP+ Operating Committee** by filling in an **CPP+ online application form**.

This Information at: <http://www.ipp.ca/sapmrs/>



Major Resource Support for the Particle Physics Group at U de Montreal

- Supporting research programs of 6 universities : **Guelph, Laurentian, McGill, Montreal, UBC, UVic**, and **TRIUMF** and their institutional collaborators in experiments at **CERN, SNOLAB, SuperKEKB, TRIUMF**.
- Experiments and facilities: **CERN**: ALPHA, ATLAS, ATLAS-upgrade, MEDIPIX/TIMEPIX, **SNOLAB** (PICASSO/PICO, EXO, HALO, SNO+), **SuperKEKB** (BELLE-II), **TRIUMF** (ALPHA, GRIFFIN, DESCANT, SPICE, TIGRESS).
- Resource also used by groups from other universities within and outside Canada (Examples: Czech Technical University, Freiburg University, IBS Daejeon South Korea), ESA -European Space Agency, FERMILAB, etc)

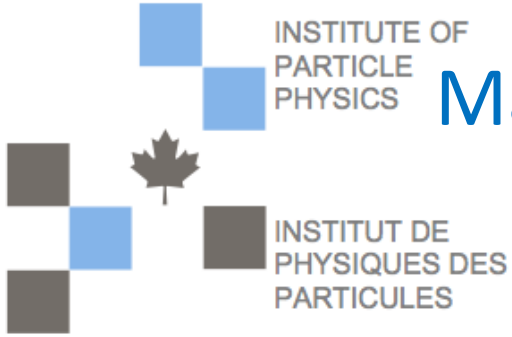


Major Resource Support for the Particle Physics Group at U de Montreal

By **Groupe Technologique (GT)** consisting of:

i) **machine shop** (Jean Soucy):

- 5 CNC vertical state-of-the-art computer-controlled milling machines (bed type; high precision)
- 5 lathes including a 12 feet long bed large diameter (24") unit (construction of prototypes and vacuum chamber elements)
- 8 foot sheer and bending machine available for sheet metal work.
- facilities for high vacuum quality welding on stainless steel, steel and aluminium (extend to plastic materials, expertise in fiber-glass handling and production).



Major Resource Support for the Particle Physics Group at U de Montreal

ii) **electronics laboratory** (Jean-Pierre Martin):

- various workstations for the design of electronic modules associated with detector readout.
- specialized equipment to instrument and test detectors. It includes semi-clean assembly area, trigger systems (cosmics, lasers), detector power supplies, source/detector positioning devices (X-Y tables), and dedicated readout and diagnostic instrumentation.
- instruments and tools for the construction and debugging of prototypes of high component density, fine pitch and using surface mount technology.



Major Resource Support for the Particle Physics Group at U de Montreal

- **The Resource provides access to proton (up to 11.4 MeV) and neutron beams** delivered by the local Tandem accelerator for detectors tests. The neutron beam line is equipped with an NMR magnet analyzer system providing monoenergetic neutrons via (p,n) reactions with keV energy resolution.
- **The computing facilities** (W.C. Chen) of the Resource consist of a server cluster with 31 cores and a web server running Linux with a total of 18 TB storage capacity. Another cluster of 12 processors is dedicated to the ATLAS computing Tier-3 for analysis. Other dedicated computers are used for data acquisition

ACCESS to the RESOURCE

The planning and allocation of access to the Resource is granted after a review by the resource BoM (representatives of the participating universities) of all aspects of the submitted projects, with the advice of the Technical Board (members of GT) for the technical aspects. This process involves consultation via electronic mail, skype and telephone conference between board and project representatives since requests are submitted at any time.

Contact for more information: leroy@lps.umontreal.ca