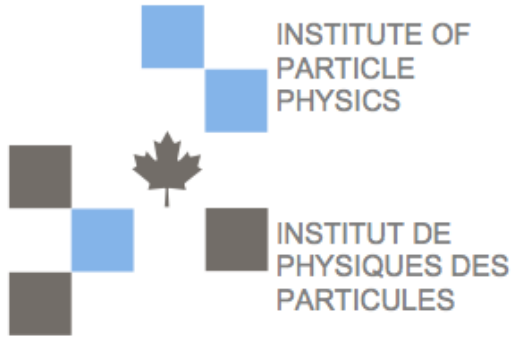


# IPP Director's Report 2014 Annual General Meeting of Individual Members

J. Michael Roney  
15-16 June 2014  
Sudbury, Ontario



# IPP Council

## 2013-2014 IPP Council

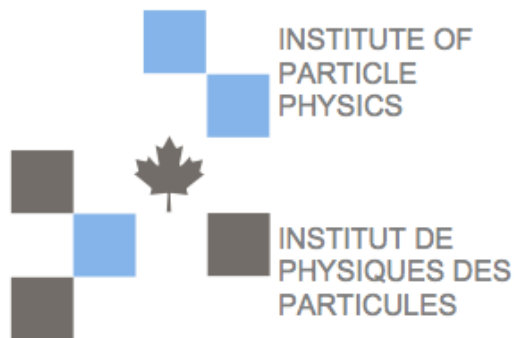
- Douglas Gingrich (2016) - Alberta
- David Hanna (2014) - McGill
- Peter Krieger (2016) - Toronto
- Wolfgang Rau (2014) - Queen's
- Oliver Stelzer-Chilton (2015) - TRIUMF
- Hirohisa Tanaka (2015) - IPP/UBC
- J. Michael Roney [Chair] (2018) - Victoria

# IPP Council

## 2013-2014 IPP Council

- Douglas Gingrich (2016) - Alberta
- David Hanna (2014) - McGill
- 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

Many thanks to David Hanna and Wolfgang Rau for their dedicated service over the past three years!

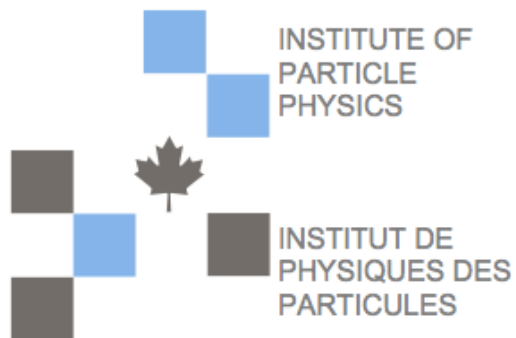


# IPP Council Elections

Call for Nominations to Council announced April 16, closed May 6  
Candidates, in random order:

- Thomas Gregoire (Carleton)
- Christine Kraus (Laurentian)
- Mark Boulay (Queen's)

- Election took place electronically between May 13 and June 5
  - Members who applied during the year prior to the call for nominations could vote; membership approved at last night's Board of Trustees meeting
- 80 ballots (140 votes)
- Votes were tallied by independent U of Toronto staff



# IPP Council Elections

Call for Nominations to Council announced April 16, closed May 6  
Candidates, in random order:

- Thomas Gregoire (Carleton)
- Christine Kraus (Laurentian)
- Mark Boulay (Queen's)

Many thanks to all candidates for agreeing put your name forward in this election to serve the community in this way

# IPP Council Elections

## 2014 IPP Council Election Results:

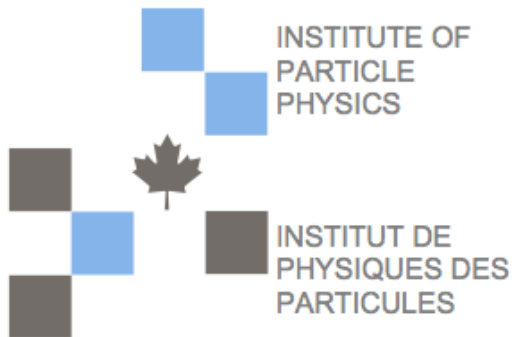
- T. Gregoire (Carleton) 51 votes
- C. Krauss (Laurentian) 53 votes
- M. Boulay (Queen's) 36 votes

Welcome Thomas and Christine to Council for the next three years

# 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

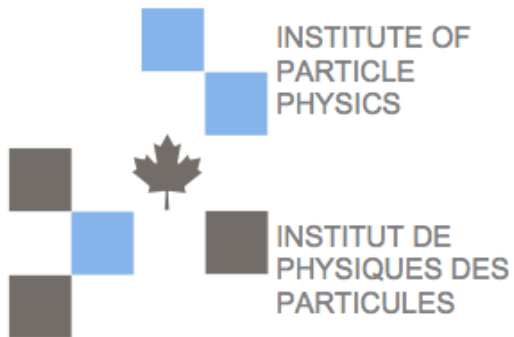


# New Individual Members

New Member	Institution	
Levon Pogosian	SFU	Theorist
Kenneth Clark	Toronto	Experimentalist
Zoltan Gecse	UBC	Experimentalist
Ian Lawson	SNOLAB	Experimentalist

## Welcome to IPP





# New Individual Members

New Member	Institution	
Levon Pogosian	SFU	Theorist
Kenneth Clark	Toronto	Experimentalist
Zoltan Gecse	UBC	Experimentalist
Ian Lawson	SNOLAB	Experimentalist

## *Resigned, Retired, or otherwise Departed members:*

Alberta – F.C. Khanna

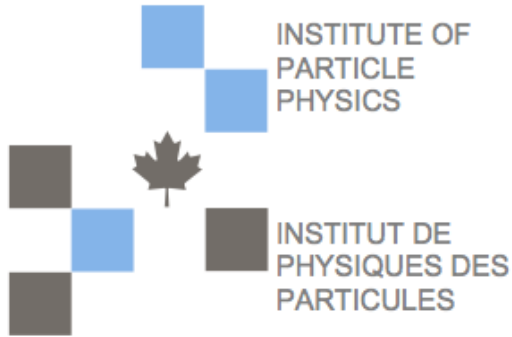
Montreal – L. Lessard

UBC – C. E. Waltham

York – R. Koniuk

York – V. Sanz-Gonzalez

Now have 200 Individual Members of IPP

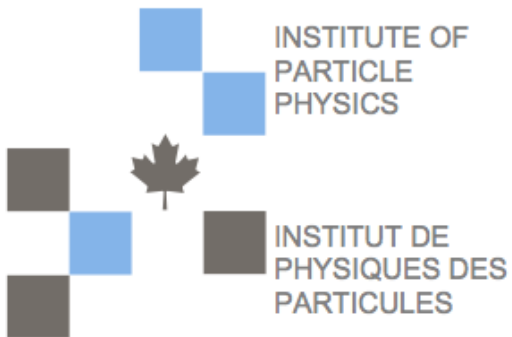


# New Institutional Member

SNOLAB applied and at last night's Board of Trustees Meeting was approved as the  
15<sup>th</sup> IPP Institutional Member

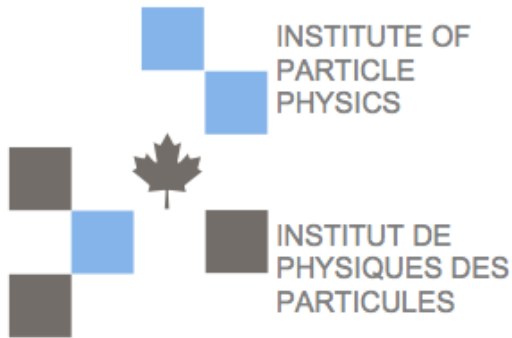
## Individual Members from SNOLAB:

- Nigel Smith, Director
- Fraser Duncan, Associate Director, Science and DEAP
- Richard Ford, SNO+
- Chris Jillings, DEAP
- Bruce Cleveland, SNO+ and EXO
- Ian Lawson has applied to the IPP, PICO.



# Activities of Council

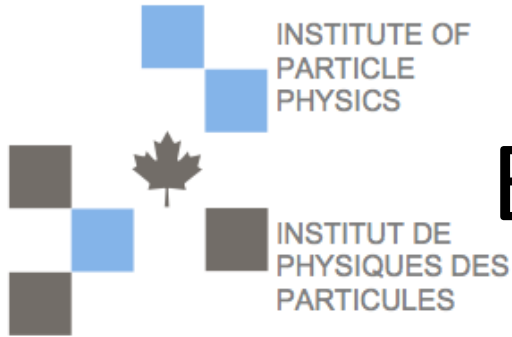
- Three meetings this year
  - Autumn: in person at University of Toronto, 18 Oct 2013
  - Winter: in person at TRIUMF, 10 Jan 2014
    - Review IPP Projects
    - Prepare for LPD
  - Spring: conference call, 29 April 2014
- Some Decisions:
  - Support IPP Summer Student Program for 2014
    - Winter meeting included start of selection, completed remotely
  - Moratorium on Conference support at Winter meeting: Reviewed in Spring meeting and will be lifted in coming year
  - Support for Science Media Centre
  - Support for TRISEP
  - New Individual Members and Institutional Members
  - Hold extended AGM/ Town Hall in 2014
  - Next year produce IPP Annual Report



# Some 2014-2015 Budget Decisions

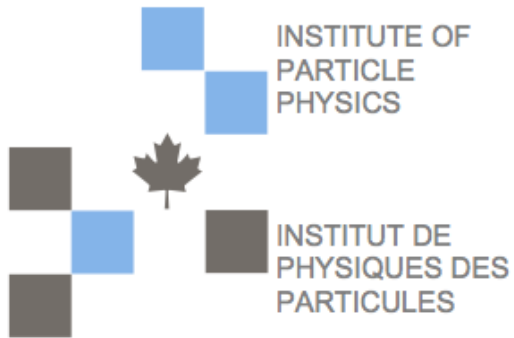
Sufficiently positive signals in discussions with moving the IPP MRS Grant to Victoria:

- Support for Conferences
  - Calls will be put out for requests for support twice per year and decisions made on a case-by-case basis with \$4500 decided on in each call
  - Must be funded from non-NSERC sources
  - Focus on use of funds to support student participation
- Propose to continue the IPP Summer Student program– but at a reduced level
  - Will seek funds from other sources and could be part of CREATE initiative



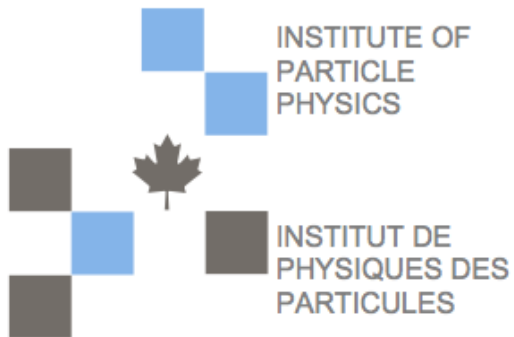
# External Activities of Director

- Addressing IPP MRS Grant – negotiations with University of Victoria
- Advocating efforts in Ottawa - meeting with NSERC (VP Charest), CFI (CEO Patry) , Industry Canada (ADM Dunlop)
- Participate with NSERC and CINO as observer at TRIUMF ACOT meetings in autumn and spring
- ICFA Meeting (DESY) Feb 2010
- Start meetings with university administrators (Chairs, Deans, VPR) in institutions with Research Scientist:
  - McGill
  - Queens
  - Victoria



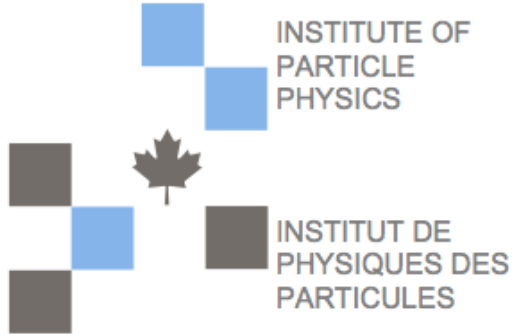
# IPP Projects

EXPERIMENT	Start data-taking	End data-taking	FTE IPP Research Scientists (FTE)	Investigators (FTE)
ATLAS	2009(1996)	2025+	4(3)	39(32)
BaBar	2000 (1998)	2008	2(0.4)	10(4)
PIENU	2009	2013	0	4(2)
EXO-WIPP	2008(2007)	2014+	0	9(~5)
PICASSO/COUPP	2004(2006)	2014+	0	9(5)
T2K	2009(2004)	2020+	1(0.8)	17(10)
Veritas	2007(2004)	2015+	0	2(2)
DEAP-3600	2014(2008)	2017+	0	13(5)
SNO+	2013(2008)	2017+	1(1)	15(10)
SuperCDMS	2011(2013)	2014+	1(0.2)	4(2.1)
Belle-II	2016(2013)	2023+	3(1.3)	10(5)



# IPP Research Scientists

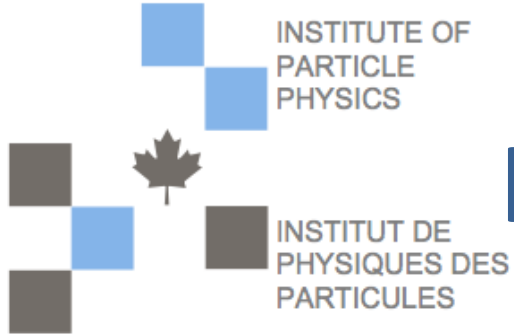
Research Scientist	Project: w/data	Future Project	Host Institution
Corriveau(1990)	ATLAS	ILC	McGill
Hearty(1994)	BaBar	Belle-II	UBC
McPherson(1997)	ATLAS		Victoria
Robertson (2003)	BaBar/ATLAS	Belle-II	McGill
Sobie (1987)	ATLAS/HEPNET	Belle-II	Victoria
Tanaka (2007)	T2K	SuperCDMS	UBC
Teuscher (2005)	ATLAS		Toronto
Wright (2012)	SNO+		Queen's



# IPP Theory PDF Programme

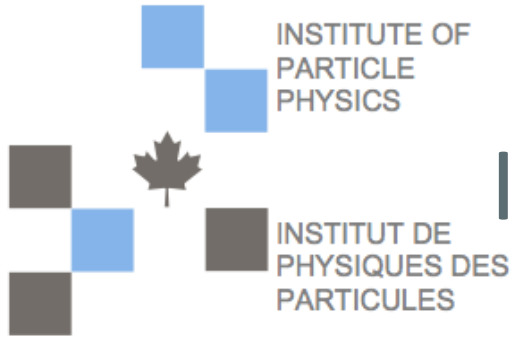
- The cut to the IPP NSERC MRS grant forced a moratorium on supporting new postdocs with this programme for 2014-2016
- Continue to support postdocs currently within the programme to fulfill existing commitments
- Deeply disappointing to the community as it had helped groups pool resources to hire excellent postdocs





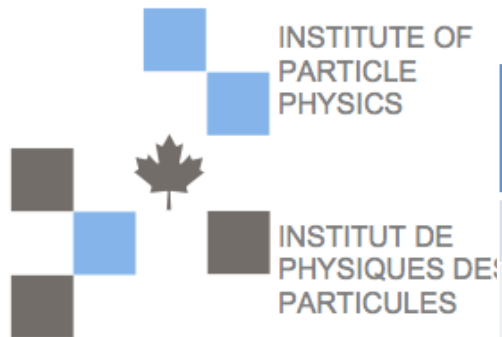
# IPP Theory PDF Programme

Year	Name	Sponsor	Currently
2006	Frey Reuter	McGill Carleton	Winnipeg (faculty) Freiburg (faculty)
2008	Larjo Underwood	UBC McGill	Brown (research associate) Pacific Lutheran (faculty)
2009	Levi Wang	UBC McGill	private sector (data mining) Kavli-IPMU (RA)
2010	Burrington Scott	Toronto McGill	Troy University (faculty) Banting Postdoc (McGill)
2011	Kurkela Taoso	McGill UBC	
2012	Ghiglieri Shuve	McGill McMaster/PI	in-progress in-progress
2013	Morrison Bhattacharya	McGill Montreal	started 09/13 Started09/13



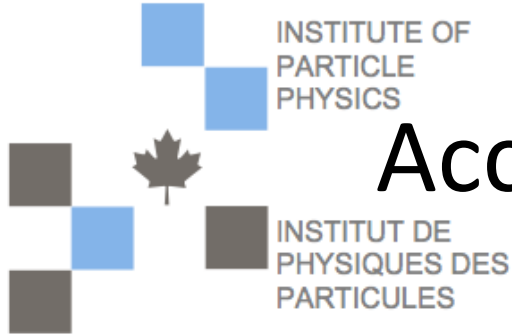
# IPP Summer Student Fellowships

- May and June in Canada with a subatomic physics project supported by NSERC USRA undergraduate student programme plus supervisor's research grant; followed by July and August at CERN participating in the CERN summer school programme of daily lectures and hands-on research in afternoons
- CERN offers positions to non-member state countries 'at cost'
- IPP pays for travel to CERN and stipend to augment USRA funding
- Gives Canadian students unrivalled opportunity to experience CERN's International research environment
- IPP identifies excellent students from across Canada in extremely competitive environment
- In 2014 three students supported: from Newfoundland, BC, Ontario. Down from 5 in 2013 due to funding cuts
- Particular encouragement to non-CERN experiments to take students in first two months, but turns out all are on ATLAS



# IPP Summer Students

Year	Name	Undergrad	Supervision	Grad School	Field
2007	Rabinovitch	Yale	TRIUMF	Cal Tech	Aerospace Eng.
2008	Guindon Ilic Louca McCarthy	Ottawa Waterloo Waterloo Queens	Carleton Toronto McMaster Carleton	Germany Toronto McMaster Carleton	ATLAS ATLAS Biology ATLAS
2009	Abouzeid Dupuis Feige LaFlamme Low	Carleton Victoria McGill McGill UBC	Toronto Victoria Toronto McGill McGill	Toronto McGill Harvard Austria Chicago	ATLAS Theory Theory Condensed Matter ATLAS
2010	Krizka Moult LeBlanc Pachal Picard	Simon Fraser UBC Acadia Victoria Victoria	Toronto Victoria TRIUMF Victoria Montreal	Chicago MIT Victoria Oxford McGill	ATLAS Theory ATLAS ATLAS Mathematics
2011	Buck Burke Collins-Fekete McDonald Portillo	Carleton Victoria Laval MacMaser Alberta	Carleton UBC Carleton Simon Fraser Alberta	UBC  Carleton Alberta Harvard	Accelerator physics  ATLAS(?) Condensed Matter Astrophysics
2012	Abdel-Aziz Bluteau Boone Friedl Killick	Toronto Acadia UBC Carleton Carleton	Toronto TRIUMF UBC Carleton Carleton		
2013	Abidi Hedrich Layden Rettie Waslaski	Toronto Thompson Rivers Waterloo Ottawa UBC	Carleton/UofT SFU McGill TRIUMF Toronto		
2014	Noordeh Quenneville Strickland	York SFU Memorial	York SFU Victoria		



# 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/>

# Ultra Cold Neutron facility @TRIUMF

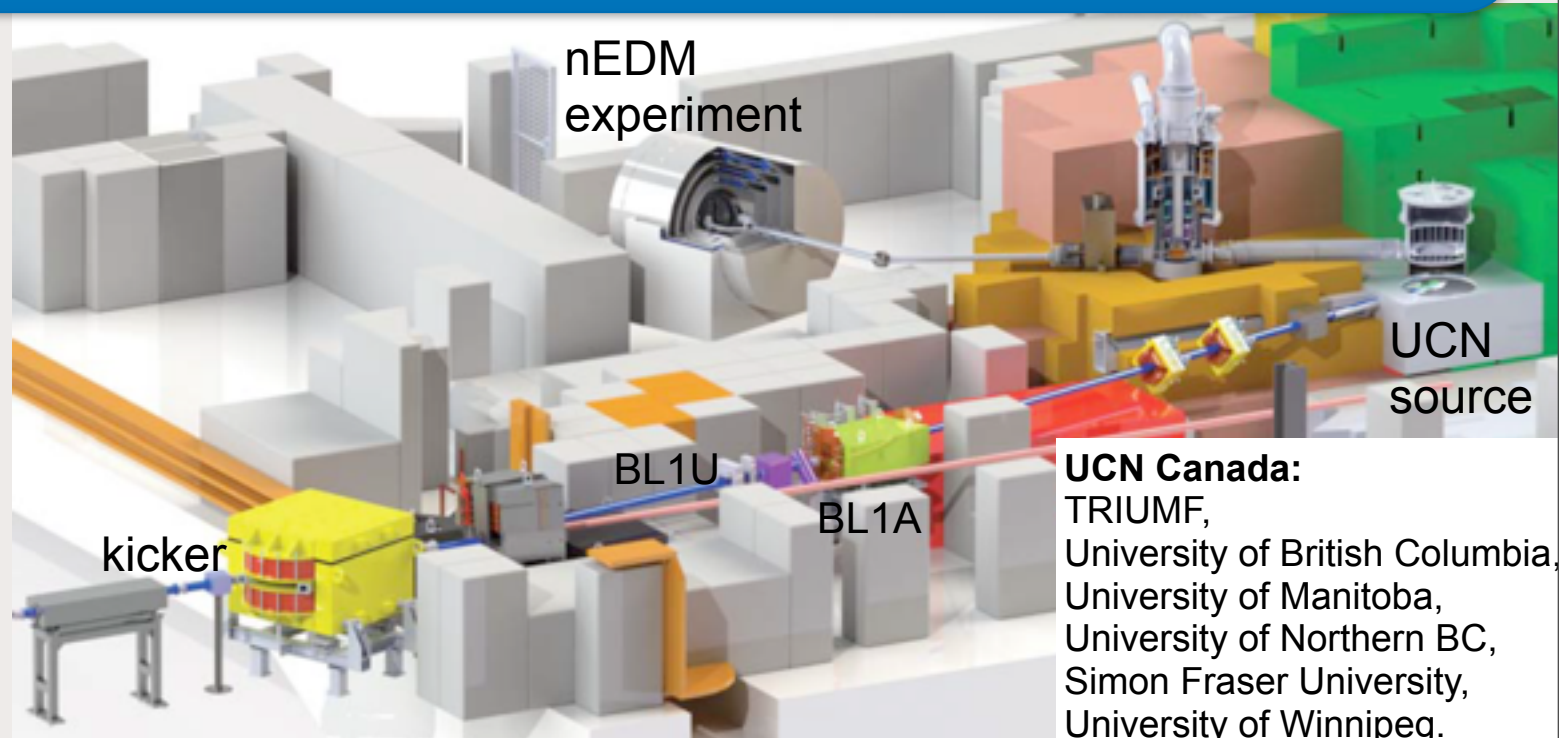
- \$11.2M CFI project (Winnipeg), strong Japan-Canada collaboration
- Source concept and EDM apparatus developed and being tested at RCNP, Japan
- Installation of new beam line and source at TRIUMF 2014/5, source in 2016
- Builds on TRIUMF extensive experience in accelerator based precision experiments

2013-2016:  
construction

2016:  
start of program  
(1-20  $\mu\text{A}$ )

2017-18:  
Expand cooling  
capacity(40  $\mu\text{A}$ )

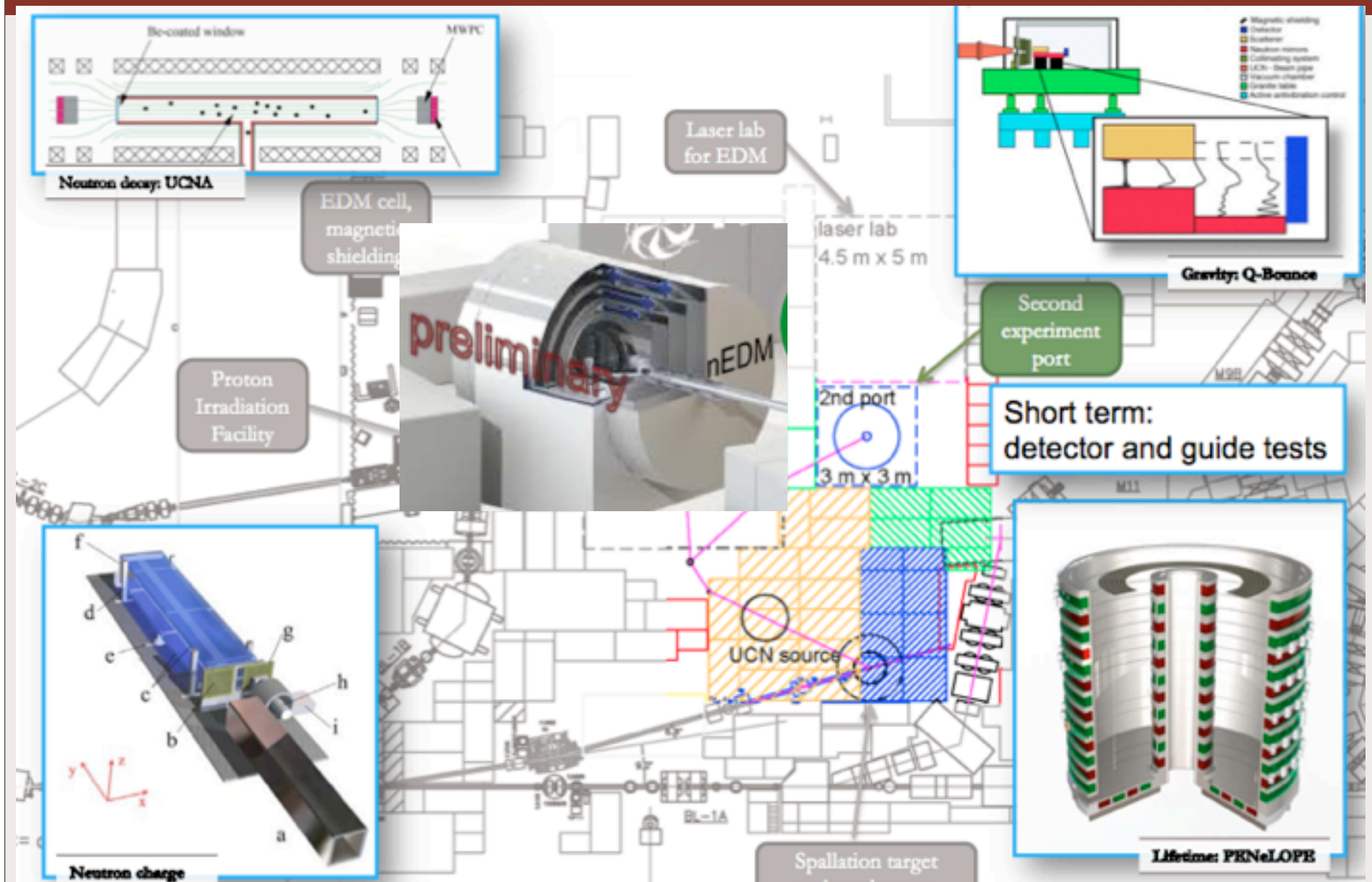
~ 2020:  
world leading  
nEDM sensitivity



**UCN Canada:**  
TRIUMF,  
University of British Columbia,  
University of Manitoba,  
University of Northern BC,  
Simon Fraser University,  
University of Winnipeg.

**Goal: world highest UCN intensity (x1000 of ILL)**

# Initial experiment: Neutron EDM

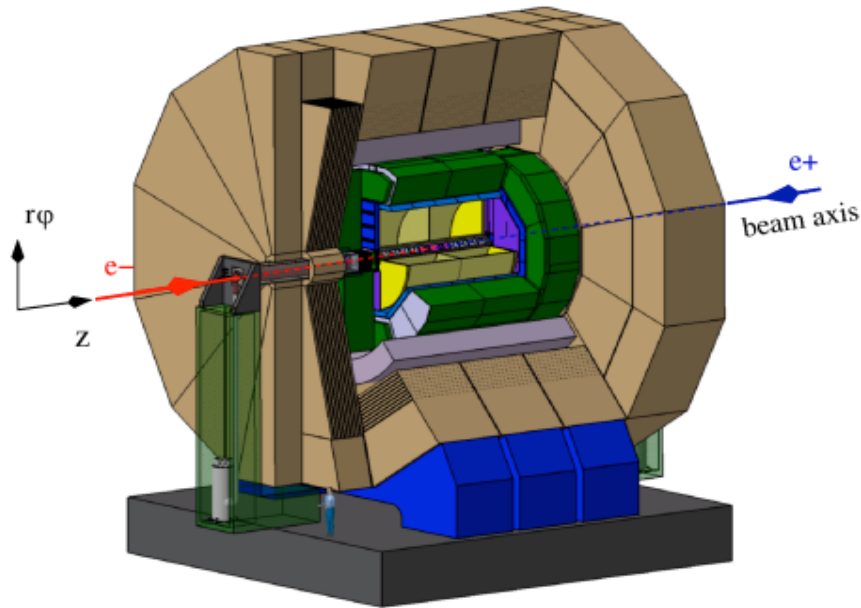




# International Linear Collider

Institutions from Canada are engaged in detector R&D for the ILC  
Invited talk at 2014 CAP Congress Wednesday morning

- Carleton (A. Bellerive and M. Dixit)
- McGill (F. Corriveau)
- Université de Montréal (J.P. Martin)
- UVIC (D. Karlen)



The ILD detector concept is inviting institutes to sign up in order to become a member of the ILD institution board.

<http://www-flc.desy.de/ild/>

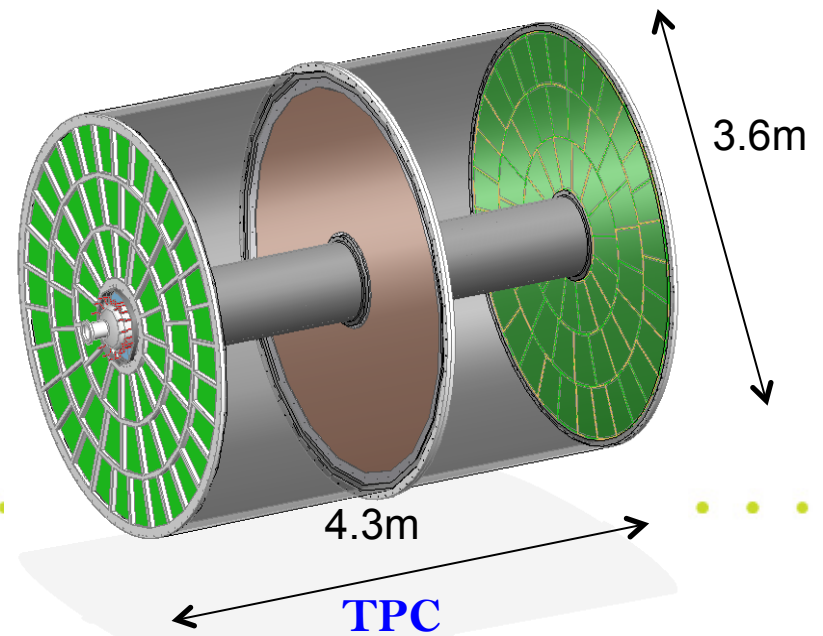
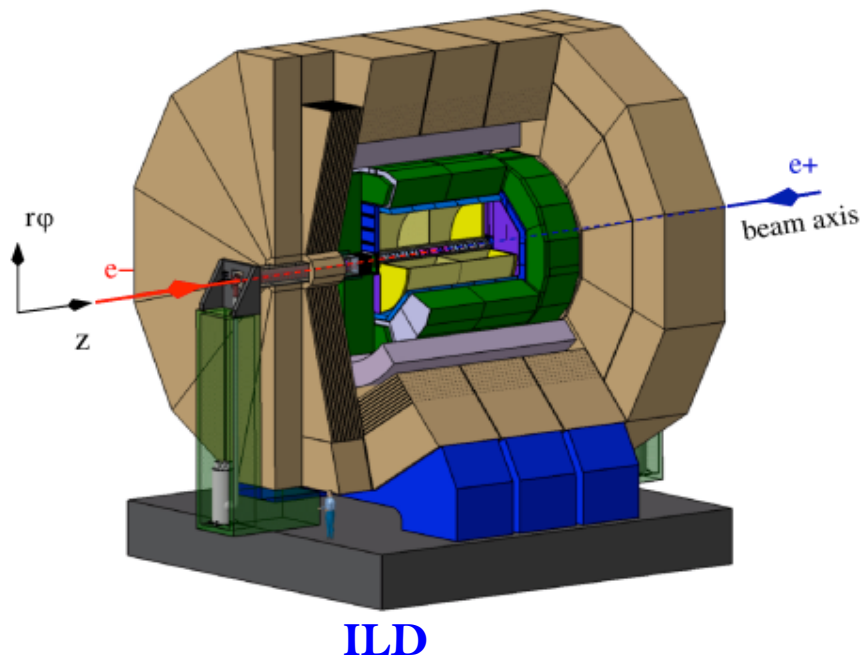
Next ILD meeting in Sendai, Japan - September 6-9, 2014

**International Large Detector (ILD)**



# Time Projection Chamber (TPC) for ILD

- ❑ Carleton - Université de Montréal - UVIC
- ❑ The project has been funded via an NSERC Project grant at the level of \$56K per year (2012-2015)
- ❑ Fund allows to support only students and participate to testbeam
- ❑ Contributed talk at 2014 CAP Congress Wednesday morning
- ❑ **New members are welcome to join. Grant to be renewed for FY2015/16. Application Summer 2014 (please contact A. Bellerive)**

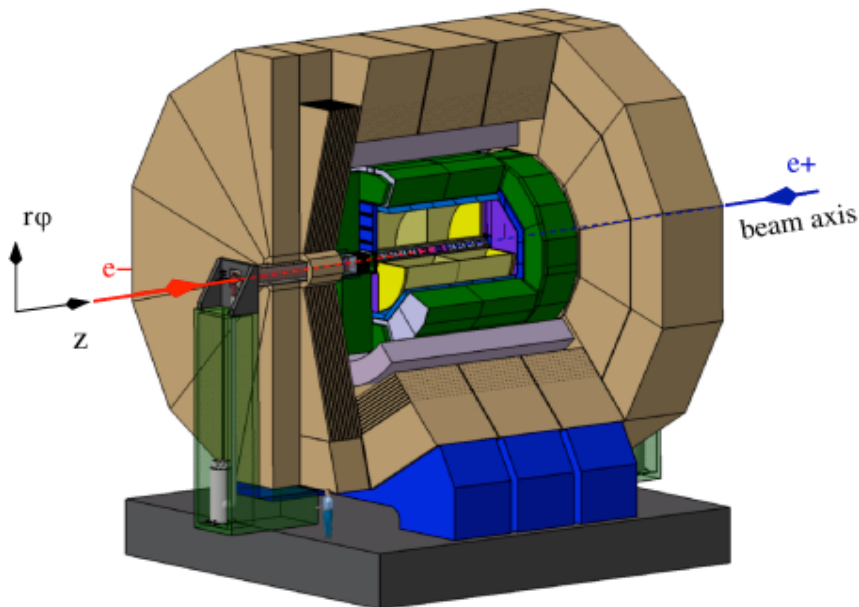




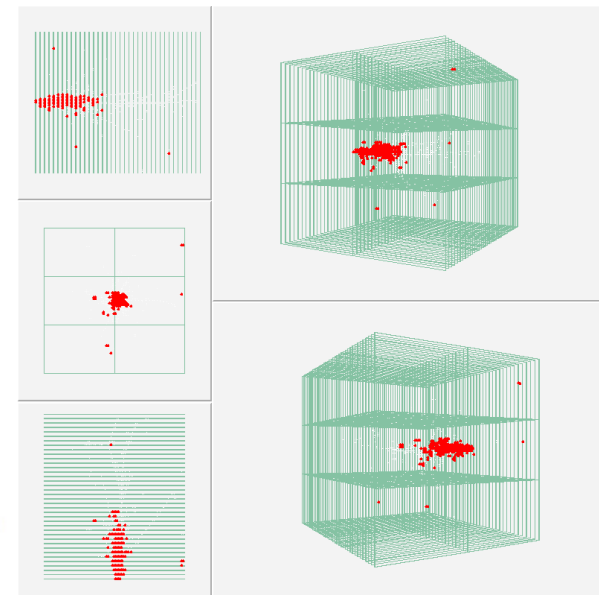


# Calorimetry (CALICE)

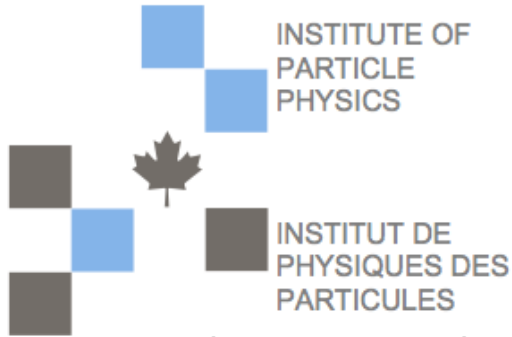
- ❑ McGill
- ❑ The project has been funded via an NSERC Project grant at the level of \$21K per year (2013-2016)
- ❑ Fund allows to support only students and participate to testbeam
- ❑ **New members are welcome to join (please contact F. Corriveau)**



ILD



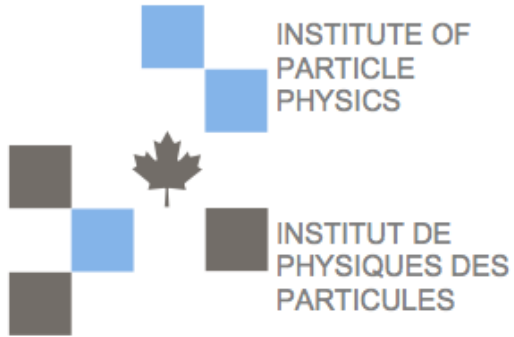
CALICE



# Priorities of IPP

## Highest Level Goal: **DO GREAT SCIENCE**

- IPP's history of success has shown that the strategy of placing the Research Scientist program as the top priority is a winner
  - Must secure stable funding for this program
- Training of next generation is also critical to doing great science, hence some secondary programs: Summer Student, Postdoc support
- Facilitating communication within Canada and abroad keeps us at the front: support for conferences, engaging with international partners via e.g. ICFA and staying in touch with what is happening abroad, e.g. P5; Council proposes to begin providing IPP Annual Reports starting next year



# Priorities of IPP

- Advocating for our field at the Federal government level – work with partners and our members
- The next Long Range Plan is now announced – will be a focus of much effort of IPP over the next two years
- Preparing for the IPP MRS Grant renewal will start this coming year and clearly the highest priority