Canadian Subatomic Physics
Long Range Plan 2022 - 26

LRP Committee Co-chairs
Brigitte Vachon (McGill) & Adam Ritz (Victoria)

https://subatomicphysics.ca/
Canadian Subatomic Physics

Canadian SAP community (2015)
- 233 grant-eligible researchers (12% women)
- 31 Universities
- TRIUMF, SNOlab, Perimeter Institute

Subatomic Physics

Canadian Institute of Nuclear Physics (CINP)
- Nuclear structure
- QCD and hadrons
- Fundamental symmetry experiments

Canadian Institute of Particle Physics (IPP)
- Precision frontier
- High energy frontier
- Neutrino properties
- Particle astrophysics
- Direct dark matter

Nuclear structure
Element formation
QCD and hadrons
Fundamental symmetry experiments
Precision frontier
High energy frontier
Neutrino properties
Particle astrophysics
Direct dark matter

Canadian Institute of Particle Physics (IPP)
Process through which community expresses its physics aspirations and identifies promising opportunities for Canada to significantly contribute to answering some of the most pressing questions in the field.

Plan updated every 5 years
Purpose and Value

- **Aim to maximize Canadian impact in a global field, given limited resources...**

- The LRP report **informs** funding agencies of the community’s priorities for the field; however, funding agencies still traditionally hold broad peer-review funding competition (e.g. **not mission-driven**).

- The report communicates to international partners (and policy makers) the Canadian plans and priorities, and resource requirements.

- An inclusive planning process that helps to strengthen and coordinate the Canadian SAP community.
Canadian SAP LRP 2022-26

• Commissioning bodies: NSERC, IPP, CINP

• LRP scope is 2022 - 2036; plan active from 2022 - 2026

• Informed by other planning processes: US Particle Physics, US NSAC, Europe, Japan, …
LRP Organization

- Process organized and coordinated by LRP Committee

### LRP Committee Membership

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
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<tr>
<td>Adam Ritz (Co-chair)</td>
<td>Victoria</td>
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<td>Brigitte Vachon (Co-chair)</td>
<td>McGill</td>
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<td>Eckhard Elsen</td>
<td>CERN</td>
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<td>Chris Jillings</td>
<td>SNOLAB</td>
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<td>Rituparna Kanungo</td>
<td>St Mary’s</td>
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<td>Bob Laxdal</td>
<td>TRIUMF</td>
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<td>Augusto Macchiavelli</td>
<td>LBNL</td>
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<td>Juliette Mammei</td>
<td>Manitoba</td>
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<td>Jeff Martin</td>
<td>Winnipeg</td>
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<td>Niki Saoulidou</td>
<td>Athens</td>
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<td>Kate Scholberg</td>
<td>Duke</td>
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<td>Alex Wright</td>
<td>Queen’s</td>
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### LRP Committee Ex-officio/observers

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<tr>
<th>Institution</th>
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<tr>
<td>CINP Executive Director</td>
<td>Garth Huber</td>
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<td>IPP Director</td>
<td>J. Michael Roney</td>
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<td>NSERC Team Leader</td>
<td>Emily Diepenveen</td>
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<td>NSERC SAPES Co-chairs</td>
<td>Alison Lister, Thomas Grégoire</td>
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<td>TRIUMF ALD Physical Sciences</td>
<td>Jens Dilling</td>
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<td>SNOLAB Director</td>
<td>Nigel Smith</td>
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<td>Perimeter Institute</td>
<td>Cliff Burgess</td>
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<td>CFI Manager, John R. Evans Leaders Fund</td>
<td>Olivier Gagnon</td>
</tr>
<tr>
<td>Arthur B. McDonald Canadian Astroparticle Physics Research Institute Scientific Director</td>
<td>Tony Noble</td>
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- Snowmass Advisory Group, Representative from the International Community (Canada): Heather Logan, Carleton University.
LRP Committee Mandate

Based on broad consultation with the Canadian community:

• Identify subatomic physics scientific ventures and priorities that should be pursued by the community on a 5-15 year time horizon and that would ensure continuous Canadian global scientific leadership.

• Provide budgetary estimates (for capital and operations), including funding ranges for prioritized endeavours allowing for (i) a restrained, yet efficient, contribution, and (ii) more extensive involvement.

• Address funding opportunities, the relationship between funding agencies and other organizations, the activities of national research organizations, and the international context.

• Address Equity, Diversity and Inclusion and support for early career researchers within the subatomic physics community.
Canadian LRP Process and Schedule

- Community-driven process

**LRP begins**

- Data gathering
- Community surveys
- CINP/IPP briefs (Dec 1st)

- Mini-townhall meetings
- LRP Townhall
- Draft recommendations
- LRP report

**LRPC@subatomicphysics.ca**

[https://subatomicphysics.ca/](https://subatomicphysics.ca/)
Summary: Canadian Long Range Plan 2022-26

• Canadian SAP Long Range Plan process ongoing.
  - Final report available in September 2021.

• Community-driven process.
  - Several ways through which community can participate.
  - We welcome any comments, suggestions and concerns from the community.

• You can join mailing list to stay informed about upcoming events.

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