

Particle Physics Division Business Meeting

Steven Robertson (Chair)
Alison Lister (Vice Chair)

CAP Congress
Queens University
May 30, 2017

Agenda

- Minutes (2016)
- CAP Congress 2017
- PhD Thesis Competition
- Membership
- Finances
- PPD web pages
- PPD Vice chair election

2017 Congress - PPD

PPD organized 8 dedicated sessions, and participated in 7 additional joint sessions with other divisions (2 organized by PPD)

M2-2	Precision Frontier (PPD)	60
M3-2	Cosmic Messengers (PPD / DNP / DTP)	90
M4-3	Dark Matter I (PPD)	105
T1-2	Energy Frontier: Standard Model, Top and Higgs (PPD)	60
T2-2	Testing Fundamental Symmetries I (DTP / PPD / DNP)	60
T3-3	Dark Matter II (PPD)	90
T4-4	Energy Frontier: Detectors and Future Developments (PPD)	105
W1-2	Neutrinoless Double Beta Decay (DNP / PPD / DTP)	105
W2-2	Neutrino Physics (PPD)	60
W3-2	Testing Fundamental Symmetries II (DNP / PPD / DTP)	90
W4-1	Advances in Nuclear and Particle Physics Theory (DTP / PPD / DNP)	75
→ R1-2	Low Background Detectors (DIMP / PPD / DNP)	75
R1-3	Quark and Lepton Flavour (PPD)	75
R2-1	Dark Matter III (PPD / DNP / DTP)	60
R3-3	Dark Matter IV (PPD)	90

- Total of 14 parallel session slots available at congress; PPD fully saturated available sessions, with minimal overlap

Sessions and oral competition

Parallel session time was somewhat limited this year, but PPD anticipated large number of student talks due to Queen's location

- Rather than holding PPD sessions in parallel, opted to limit number of invited talks (9 vs 14 in 2016)
- No complaints (so far...)

Sessions are heavily front-loaded with student talks to allow judging prior to Weds afternoon cut-off

- Judges: Alison Lister, Tony Noble, Christine Kraus, Claudio Kopper, SHR

THANK YOU VERY MUCH!

- Large number of contributions permitted PPD to offer 3 prizes for the oral competition, and 2 for poster competition

Total of 67 abstracts submitted to PPD

29 (28) students in oral competition (4 reassigned to other divisions)

18 non-student/not in competition

9 (2) students posters in competition

1 (3) non-student/not in competition

No abstracts were rejected or changed to posters

Sessions and oral competition

In terms of “scientific presence” at Congress, PPD is a dominant division

- Largest volume of talks and posters overall, and largest number of students in competition:

Division	Oral		Poster	
	Entries	Prize(s)	Entries	Prize(s)
Atmospheric and Space Physics (DASP) Chair: Johnathan Burchill	4	1	0	0
Condensed Matter and Materials Physics (DCMMP) Chair: Graeme M. Luke	25	3	3	1
Atomic, Molecular and Optical Physics, Canada (DAMOPC) Chair: Paul Barclay	8	2	9	2
Industrial and Applied, Physics Education, Surface Sciences and Instrumentation and Measurement Physics (DPE- DSS-DIMP) Chairs: Martin Williams, Steve Patitsas and Kirk Michaelian	6	2	1	0
Nuclear Physics (DNP) Chair: Reiner Kruecken	8	2	1	0
Particle Physics (PPD) Chair: Steven Robertson	25	3	8 9	2
Physics in Medicine and Biology (DPMB) Chair: Christopher Bergevin	11	3	5	1
Theoretical Physics (DTP) Chair: Svetlana Barkanova	11	3	2	0

Roughly the same number of PPD talks in competition as last year, but several more posters this year

Invited Plenary Speaker

PPD sponsored plenary speaker: (Thurs afternoon following student oral finals)

Perspectives and Prospects for Particle Physics

Chris Quigg, Fermi National Accelerator Laboratory

I will present an overview of where we stand in the physics of high energies and ultrasensitive experiments, mentioning developments from Large Hadron Collider experiments and elsewhere, and give an assessment of what comes next. I will bring plenty of questions, and look forward to hearing yours!

- Jointly sponsored by DHP (History of Physics)
 - Student of J. D. Jackson; invited to present a retrospective

PPD typically nominates an invited speaker roughly every second year (we pay the travel expenses). However, nominations are considered on their own merits by the CAP advisory board so suggestions are always appreciated.

Herzberg Memorial Lecture

"Deep Dark Questions: Neutrinos and Dark Matter at SNO and SNOLAB"
Dr. Arthur B. McDonald

- Discussions underway for 2019 Congress speaker

PhD Thesis Competition

PPD organizes an annual competition for Best PhD Thesis

<https://www.cap.ca/en/div/ppd/theses>

- Awarded for first time in 2016 to Patrick De Perio
- \$500 cash prize, plus sponsorship of CAP invited talk, TRIUMF seminar and article in PiC

2017 competition:

- Coordinated call for nominations and deadlines with DNP and DTP competitions (also rules preventing nominations in multiple divisions)
- PPD received only one completed nomination and hence were unable to hold a competition (program rules dictate minimum of 5 nominations; candidates can be rolled over to successive years in the event of a lack of quorum)
 - Neither DHP nor DTP received sufficient nominations to award prizes either

PhD Thesis Competition

Proposal:

- eliminate quorum requirement and hold a competition every year; selection committee can decline to award a prize in the event that the top candidate is not “above the bar”

Action item:

- PPD executive should see if there are ways to facilitate the nomination process

Membership

Total of 413 PPD members as of 2017, summing all categories

- 318 total in 2016, 289 in 2015
- Increase presumably driven by CAP-wide membership drive

161 full members, including retired / reduced fee (153 last year)
90 graduate students (67 last year)
156 undergrads (98 last year)
6 “other”

Comments:

- Students do not pay divisional dues, and may be members of multiple divisions
- Students commonly join CAP only when “required” to in order to present at the Congress and/or allow their membership to lapse after graduation
- General push by CAP to retain students post-graduation, and to sign up “low hanging fruit” faculty members

Finances

As of March 31, 2017:

- PPD account balance \$9450.36 (\$8670.36 as of Dec 2015)*
- Deferred revenue \$1165.00
- 5 yr members revenue \$190.00

Expenses:

- Best thesis prize 2016 \$500 No prize awarded for 2017
- WNPPC prize contribution \$250 **
- Student Orals competition prizes:
 - 1st \$200
 - 2nd \$100 3 prizes awarded in each of 2016 & 2017
 - 3rd \$50
- Student Poster competition prizes:
 - 1st \$200 (?) 2 prizes to be awarded in 2017; No prizes in 2016
 - 2nd \$100 (?)
- Support for invited plenary speaker Chris Quigg (costs shared with DHP)

* Not quite apples-to-apples; Balance of \$9080.36 as of Dec 2016)

** Bookkeeping problem (charged twice)?

Finances (cont.)

Bottom line:

- We are currently maintaining a balance of ~\$9k, with annual expenditures of ~\$1.5k
- Annual revenue from membership dues \$10/head dues of approximately 150 members
- 2017 was “typical”, implying that we have something like 5 years worth of operating costs already in the bank

Some divisions have been moving towards increasing their membership fees to (typically) \$15

- Discussed at PPD business meeting last year; executive was to bring a proposal to meeting this year.
- **Propose to maintain fees at current level**
- Invite PPD community to propose other ways that PPD revenue can be used to support the community

Web Pages

PPD web pages are maintained by Francois Corriveau:

<https://www.cap.ca/en/div/ppd>

Thank you very much Francois for your continued efforts!

- CAP is working to improve their communications, in particular, their web presence. PPD pages are being overhauled as part of this process

PPD Vice Chair Election

Beginning in 2015, PPD has moved to a system of formally electing the incoming PPD vice-chair, but process is still evolving:

- April 19: Request for nomination of candidates (May 5 deadline)
 - Three nominations were received, and two candidates agreed to stand for election
- May 10: Opened voting by hidden Doodle poll (May 22 deadline)
 - Candidate bios circulated belatedly
- Total of 45 votes cast:

Claudio Kopper	27
Ryan Martin	18

Thank you to Ryan for his willingness to stand for this position!

Welcome to Claudio!

Thank you