Title: Opening Remarks

Speakers:

Collection/Series: Magnetic Fields Around Compact Objects Workshop

Subject: Strong Gravity

Date: March 26, 2025 - 9:00 AM

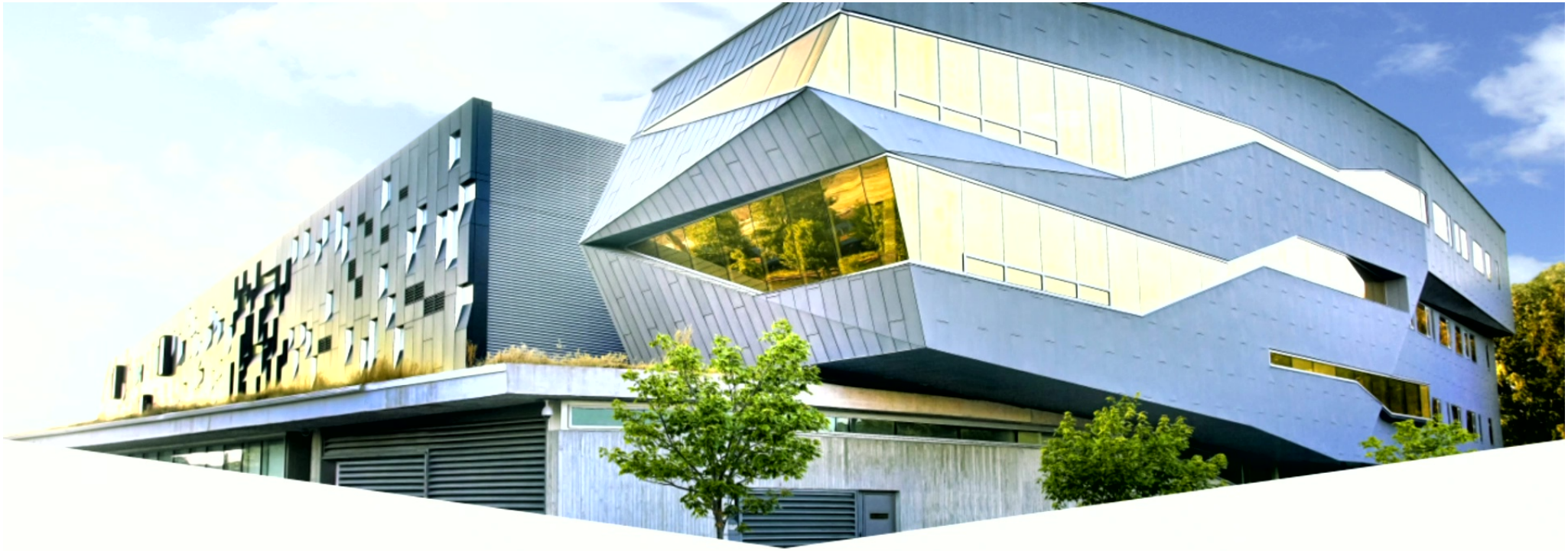
URL: https://pirsa.org/25030072

25 YEARS | PI We are Explorers.

CITA ICAT Canadian Institute for Theoretical Astrophysics / L'institut Canadien d'astrophysique théorique

WELCOME

MAGNETIC FIELDS AROUND COMPACT OBJECTS



In the spirit of understanding and learning from what has come before, Perimeter respectfully acknowledges that we are located on the traditional territory of the Attawandaron, Anishnaabeg, and Haudenosaunee peoples. Perimeter is situated on the Haldimand Tract, land promised to Six Nations, which includes six miles on each side of the Grand River.

As settlers, we thank all the generations of people who have taken care of this land for thousands of years. We are connected to our collective commitment to make the promise and the challenge of Truth and Reconciliation real in our communities.

Respectful Environment Code of Conduct

- Perimeter Institute is committed to creating and maintaining a physical and virtual environment that is free from unlawful harassment, violence and/or discrimination. PI supports a zero-tolerance policy with regards to workplace harassment, violence and/or discrimination.
- Visit Perimeter's website for more information

https://perimeterinstitute.ca/respectful-environment-code-conduct

At Perimeter – BOB ROOM

- Talks will take place in the Bob Room and in our virtual space with participants joining on Zoom.
- Coffee breaks will take place in the main floor Atrium.
- Lunch and banquet will be in the 2nd floor dining room (take the stairs or elevator up from the main floor Bistro)
- Main floor washrooms are through the glass door to the left of the coffee station.
- Gender neutral washrooms – some on each floor, closest are just to the right outside the Bob Room.
- Building hours – workshop participants can access the building between 8am and 5pm, with their name badge.

Online Participants

- **Use the chat or Q&A module on Zoom to submit questions**.
- To access **AI translated captions**, click the CC button and choose your preferred language.
- **Workshop sessions will be recorded and uploaded** to Perimeter's PIRSA.org archive.
    - Presentation slides and blackboard content will be included as a PDF with the recording.

Workshop Timetable

Accessed via the QR code on the back of you name tag.

OR

events.perimeterinstitute.ca/event/743/timetable/

Panel Discussion Topics

Magnetic Fields Around Compact Objects

The scope of the workshop is fairly broad and interdisciplinary.

Invited and contributed talks represent the state of the art in terms of modelling plasmas around black holes and neutron stars.

- What are the biggest technical challenges ahead and interesting questions to solve in modelling high-energy phenomena around compact objects?
- What can we learn from each other?

Wednesday, March 26, 2025		Thursday, March 27, 2025		Friday, March 28, 2025	
8:30 a.m.	Registration				
9:00 a.m.	Opening Remarks	9:00 a.m.	Neutron Star Mergers and AthenaK	9:00 a.m.	Numerical simulations of accreting n…
9:15 a.m.	Snap, Crackle and Pop	9:30 a.m.	General Relativistic Magnetohydrod…	9:30 a.m.	Transient Radio Emission of Quiescent …
9:45 a.m.	Modeling Luminous Black Hole Accreti…	10:00 a	Long-term impact of the magnetic-fie…	10:00 a	Hybrid Forcefree-(GR)MHD simulations…
10:15 a	Black Hole Jet Sheath as a Candidate fo…	10:15 a	Magnetic field effects in binary neutron …	10:15 a	Magnetic Field Evolution and Superco…
10:30 a	Hot, Retrograde Tilted MADs: Misalign…	10:30 a	Break	10:30 a	Break
10:45 a	Break	11:00 a	Dark Photon Superradiance	11:00 a	Radiation from fast magnetic dissipati…
11:15 a	Workshop Talk	11:30 a	Tayler instability in Protoneutron stars	11:30 a	GRMHD simulations of accretion disks…
11:45 a	Rethinking The Black Hole Corona as a…	12:00 p	Seminar	12:00 p	Modeling X-ray emission in radiation-ric…
12:15 p	Lightning Talks			12:30 p	Lunch
12:30 p	Lunch	1:00 p.m.	Lunch		
2:00 p.m.	Colloquium: Radiation of Extreme Plasmas near the Neutron Stars and Black holes			2:00 p.m.	Fast radio bursts as precursor radio emi…
				2:30 p.m.	Particle Acceleration in Magnetically…
		2:45 p.m.	Relativistic Gas Accretion onto Supe…	2:45 p.m.	Break
3:00 p.m.	Break	3:00 p.m.	Magnetar Formation via Accretion-Ind…		
3:30 p.m.	The Impact of Plasma Angular Moment…	3:15 p.m.	Break	3:15 p.m.	Panel Discussion #3
3:45 p.m.	AsterX: a new open-source GPU-accele…	3:45 p.m.	Lightning Talks		
4:00 p.m.	Panel Discussion #1	4:00 p.m.	Panel Discussion #2	4:15 p.m.	Closing Remarks

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