



Collisionless shocks meeting, IRF Uppsala, 26-27 January 2023

Online: Zoom link (for both days) for online participation and presentations: Sent by email to registered participants

[Meeting website](#)

In-person: house 8, floor 3 in room 83113

Thursday 26 January 2023

10:00 **Andrew P. Dimmock**, welcome and opening of the meeting

Interplanetary Shocks 1000-1130 (Chair: Yuri Khotyaintsev)

Domenico Trotta (Imperial College London), Particle acceleration and transient structures at interplanetary shocks

Andrew P. Dimmock (IRF), Ion reflection at quasi-perpendicular shocks observed by Solar Orbiter

Rami Vainio (University of Turku), Quasilinear modelling of interplanetary shock acceleration

Diana Morosan (University of Helsinki), The escape and propagation of shock-accelerated electron beams during a coronal mass ejection

- Lunch 1130-1300 -

Astrophysical shocks 1300-1430 (Chair: Ahmad Lalti)

Jacco Vink (University of Amsterdam), Collisionless shock phenomena in astrophysical shocks

Arief Ahmad (Uppsala University), Pulsations of, and the shocks surrounding, asymptotic giant branch stars

Dmitry Prokhorov (University of Amsterdam), Magnetic-field topology on sub-parsec scales in Tycho's SNR

- Coffee & discussion 1430-1500 -



Foreshock / sheath plasma regions 1500-1700 (Chair: Andrew Dimmock)

Ida Svenningsson (IRF), Classifying the magnetosheath using local measurements from MMS

Savvas Raptis, Downstream high-speed plasma jet generation as a direct consequence of shock reformation

Daniel Graham (IRF), Plasma frequency waves in Earth's electron foreshock

Emiliya Yordanova (IRF), Physics of sheath plasma regions

- 18:30 Dinner @ Peppar Peppar -

Friday 27 January 2023

Planetary bow shocks 0930-1200 (Chair: Daniel Graham)

Tomas Karlsson (KTH), Short large-amplitude magnetic structures (SLAMS) upstream of Mercury's bow shock

Andreas Johlander (FOI), Electron heating scales at quasi-perpendicular shocks

Yuri Khotyaintsev (IRF), Statistical study of shock rippling

- Coffee & discussion 1030 -1100 -

Martin Lindberg (KTH), MMS observation of Two-step electron acceleration at Earth's bow shock

Ahmad Lalti (IRF), SHARP terrestrial shock database and validation

Max van de Kamp (FMI), SHARP non-terrestrial shock database

- Lunch & close of meeting -

Dinner on 26 January 2023: The dinner will be at Peppar Peppar (<https://pepparpeppar.se/>), which is a 4 min walk (300m) from Uppsala train station (Address: Suttungs gränd 3, 753 19 Uppsala, Tel: 018 - 13 13 60). The reservation is for 18:30. Those who indicated they will attend the dinner should have received a pre-order form. If not, please get in touch.



Getting to Uppsala from Arlanda

By Taxi:

You can take a taxi directly from Arlanda airport to Uppsala or IRF; the cost is usually ~700 SEK. Before accepting a taxi ride it is important to always request a fixed price.

You can also pre-book and provide the flight number so they will adjust the pickup for any flight delays. The following companies can be used to pre-book taxis.

- <https://www.taxikurir.se/uppsala>
- <https://uppsalataxi.se/>

By Train:

SL's commuter trains to Stockholm and Uppsala stop at Arlanda Central Station, located in SkyCity between terminals 4 and 5.

You can buy tickets for the commuter train from SL's and UL's ordinary sales points, at the information desk in the arrival hall in terminal 5 and at Arlanda Central Station.

SL website: <https://sl.se/en/in-english/>

UL website: <https://www.ul.se/en>

By Bus:

You can also take bus number 801 from Arlanda to Uppsala, and it will cost you approximately SEK 100. Tickets can be purchased at the Arlanda Visitor Centre located in Terminal 5, or at information desks in Terminal 2 and Terminal 4.

Alternatively, tickets can be purchased on board (please note that only card payment is accepted on board). The bus runs regularly during night time as well. For more information, please visit [UL:s website](#).

Getting to IRF from Uppsala

From Uppsala by bus: you can take bus 4 from Uppsala train station to Regementsvägen, which takes around 15 minutes. Check the UL website for times and also Google Maps.

From Uppsala on foot: You can walk to IRF from downtown Uppsala in around 30 minutes (2.7 km from the train station).



Location of the meeting

The meeting will be inside IRF Uppsala, which is located at the Ångström laboratory (Ångströmlaboratoriet). The meeting location is house 8 on floor 3 room 83113.

When you arrive at the entrance to IRF (corridor to house 8 on floor 3), please ring the doorbell and someone will let you in.

Hotel options

- [Hotel von Kraemer](#), 9 min walk, 1660 SEK per night
- [SCANDIC UPLANDIA](#), downtown Uppsala few minutes' walk to the central station, 1100 SEK per night
- [Radisson Blu Hotel, Uppsala](#), next to Uppsala central station, 1200-1400 SEK per night
- [Grand Hotel Hörnan](#), downtown Uppsala few minutes' walk to the central station, 1600-1800 SEK per night
- [Elite Hotel Academia](#), next to Uppsala central station, 1200-1300 SEK per night

Contact person:

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