



PUNCH 2 Science Meeting
Working Agenda as of 3 August, 2021
(Times listed below are Pacific Daylight Time)
<https://www.thetimezoneconverter.com/>

MONDAY, 9 AUGUST, 2021:

Session 1 (chairs: Amir Caspi, Cherilynn Morrow)

8:00-8:20:

- **PUNCH status update:** Craig DeForest (10 minutes)
- **PUNCH science update:** Sarah Gibson (10 minutes)

8:20-8:50: **WG1A: The Global Evolving Solar Wind**

- **WG1A introduction/update** - Barbara Thompson (10 minutes)
- **Scene-setter: Solar Wind Statistical Relationships Useful for Providing Analysis Constraints and Additional Space Weather Data Products** - Heather Elliott and Naty Alzate (20 minutes)

8:50-9:20: **WG1B: Solar Wind Microstructures and Turbulence**

- **WG1B introduction/update** - Nicholeen Viall (10 minutes)
- **Scene-setter: How does Coronal Magnetic Reconnection Generate Solar Wind Structures and What will PUNCH See?** - Aleida Higginson (20 minutes)

9:20-9:35:

- **Break**

Session 2 (chairs: Barbara Thompson, Nicholeen Viall)

9:35-10:20:

- **Plenary free discussion**

10:20-10:40:

- **Science Operations Center** - Dan Seaton

10:40-11:30:

- **Session: The Global Evolving Solar Wind; Microstructures and Turbulence**
 - Flow tracking summary + announcement from Valmir Moraes Filho and Vadim Uritsky on flow tracking challenge
 - SHINE-style presentations (1-3 slides: Chitta, Moraes Filho, Morton, Scott, Van Kooten)

11:30-11:40:

- **Break**

Session 3 (chairs: Barbara Thompson, Nicholeen Viall)

11:40-12:30:

- **Session (continued): The Global Evolving Solar Wind; Microstructures and Turbulence**
 - SHINE-style presentations (1-3 slides: Chen, Engell)
 - Open discussion regarding SHINE style talks, Scene setting talks from morning, flow tracking and any other topics someone wants to bring up

12:30-12:50

- **Update on PUNCH Outreach Program** - Cherilynn Morrow (20 minutes)

12:50-1:00

- **Wrapup**

1:30-3:30

- **Ice breaker activity**

TUESDAY, 10 AUGUST, 2021:

Session 4 (chairs: Sarah Gibson, Craig DeForest)

8:00-8:40:

- **PUNCH Associate Investigator** talks
 - **The untapped power of AI for tracking the solar wind flows** - Raphael Attie (20 minutes)
 - **Optical flow technique: from the aurora to the solar wind** - Bea Gallardo-Lacourt (20 minutes)

8:40-9:10: **WG1C: Alfvén Zone - Boundary of the Heliosphere**

- **WG1C introduction/update** - Steven Cranmer (10 minutes)
- **Scene-setter: Insights from 3D Simulations, Remote Imaging, and PSP Data on the Location and Dynamics of the "Corrugated" Alfvén Zone** - Rohit Chhiber (20 minutes)

9:10-9:40: WG2B

- **WG2B: CIR Formation and 3D Dynamics** - Curt de Koning (10 minutes)
- **Scene-setter** - Vic Pizzo (20 minutes)

9:40-9:55:

- **Break**

Session 5 (chairs: Steven Cranmer, Curt de Koning)

9:55-10:40:

- **Plenary free discussion**

10:40-11:30:

- **Session: Heliospheric Boundaries and CIRs**
 - SHINE-style presentations (1-3 slides: Matthaeus, Katsiyannis, Vieira, Rathore)
 - Open Discussion

11:30-11:40:

- **Break**

Session 6 (chairs: Steven Cranmer, Curt de Koning)

11:40-12:30:

- **Session (continued): Heliospheric Boundaries and CIRs**
 - SHINE-style presentations (1-3 slides: Odstroil, DeForest)
 - Open Discussion

12:30-12:50

- **STEAM Presentation**
 - **Student Thermal Energetic Activity Module (STEAM): X-Ray Spectrometer for Solar Flares and Active Regions** - Gabriela Galarraga, Samantha Honan, and Sarah Bordiuk (20 minutes)

12:50-1:00

- **Wrapup**

WEDNESDAY, 11 AUGUST, 2021:

Session 7 (chairs: Sarah Gibson, Craig DeForest)

8:00-8:40:

- **PUNCH Associate Investigator talks**
 - **Forward Modeling as a Tool for Analyzing PUNCH Data** - Chris Gilly (20 minutes)
 - **Evolution of Magnetized CMEs in the Inner Heliosphere: GAMERA-Helio simulations** - Elena Provornikova (20 minutes)

8:40-9:10: **WG2A: CME Trajectory, 3D Structure and Evolution**

- **WG2A introduction/update** - Anna Malanushenko (10 minutes)
- **Scene-setter: The State of Research on Coronal Mass Ejections and What PUNCH Can Do About it** - Angelos Vourlidas (20 minutes)

9:10-9:40: **WG2C: Shock 3D Dynamics and Morphology**

- **WG2C introduction/update** - Mihir Desai (10 minutes)
- **Scene-setter: Particle Acceleration at Shocks from the Sun to 1AU: The Importance of the Magnetic Field** - Joe Giacalone (20 minutes)

9:40-9:55:

- **Break**

Session 8 (chairs: Mihir Desai, Anna Malanushenko)

9:55-10:40:

- **Plenary free discussion**

10:40-11:30:

- **Session: CMEs and Shocks**
 - SHINE-style presentations (1-3 slides: Morgan, Majumdar, Patel, Zhuang)
 - Open Discussion

11:30-11:40:

- **Break**

Session 9 (chairs: Mihir Desai, Anna Malanushenko)

11:40-12:30:

- **Session (continued): CMEs and Shocks**
 - SHINE-style presentations (1-3 slides: Gibson, Jackson, Hess)
 - Open Discussion

12:30-12:50

- **PUNCH and HSO Connect** - Barbara Thompson (20 minutes)

12:50-1:00

- **Final discussion/wrapup**