

Session Program

Sep 5 - 7, 2022



PASTO - Particle Acceleration in Astrophysical Objects

Theory of Particle Acceleration in Astrophysical Environments

Astronomical Observatory of Rome
Via Frascati, 33 - Monte Porzio Catone - Roma (Italy)

Mon, September 5

9:30 AM

Theory of Particle Acceleration in Astrophysical Environments

Session | **Location:** Astronomical Observatory of Rome, Via Frascati, 33 - Monte Porzio Catone - Roma (Italy) | **Convener:** Giovanni Morlino

9:30 - 10:25 AM

Review talk: The surprising effectiveness of cosmic ray acceleration

Speaker

Tony Bell

10:25 - 11:00 AM

Thematic talk: Particle acceleration at nonrelativistic astrophysical shocks: eligibility to participate in the diffusive shock acceleration

Speaker

Dr Siddhartha Gupta

11:00 AM

11:30 AM

Theory of Particle Acceleration in Astrophysical Environments

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11:30 AM - 12:05 PM

Thematic talk: From Turbulence to Reconnection to Particle Acceleration: Connecting the Dots

Speaker

Luca Comisso

12:05 - 12:25 PM

Particle acceleration and plasma reconfiguration by magnetic reconnection in laboratory and astrophysical plasmas

Speaker

Dr Paolo Buratti

12:25 PM

1:40 PM

Theory of Particle Acceleration in Astrophysical Environments

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1:40 - 2:00 PM

Reconnected Astrophysical Plasma results from PIC code simulations

Speaker

Dr Eloisa Menegoni

2:00 - 2:35 PM

Thematic talk: The current state of the electron injection problem

Speaker

Artem Bohdan

2:35 - 2:55 PM

Model of Gamma-ray Bubbles in the Galaxy and Relevant Mode Particle Interactions

Speakers

Alessandro Cardinali, Prof. Bruno Coppi

2:55 - 3:30 PM

Thematic talk: Advances in particle acceleration at non-relativistic shocks: from plasma instabilities to entire supernova remnants

Speaker

Christoph Pfrommer

3:30 PM