PASTO - Particle Acceleration in Astrophysical Objects



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Thematic talk: Relativistic accelerators: Gamma-Ray Bursts

Wednesday, 7 September 2022 14:35 (35 minutes)

Gamma-Ray Bursts (GRBs) are the strongest explosions in the Universe, and are powered by ultra-relativistic jets. They produce very bright emission both within the relativistic outflow (prompt gamma-ray emission, X-ray flares, reverse shock emission - optical flash and radio flare) and from the relativistic shock that they drive into the external medium (the long-lived broad-band afterglow emission). This emission provides strong evidence for non-thermal particle acceleration in these regions and teaches us about its properties along with the physical conditions and processes at work. This talk will discuss our current understanding along with existing open questions and puzzles that can motivate related theoretical work.

Collaboration

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Session Classification: Extragalactic Astrophysical accelerators