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**Séminaire
DPhP**

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The hunt for PeVatrons

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The search for PeVatrons (objects capable of accelerating 10^{15} eV particles) has become one of the key targets of the high-energy gamma-ray community. These objects are of crucial importance in the context of the origin of cosmic rays (CRs), since the sources of Galactic CRs are expected to be PeVatrons.

Currently, the most famous candidates for the origin of Galactic CRs are supernova remnants (SNRs), the shocks expanding in the interstellar medium after the explosion of massive stars. But surprisingly, all detected SNRs have been shown to not be PeVatrons, making the situation somewhat bewildering.

A special attention is currently being devoted to the search of a SNR PeVatron, and we will discuss the possibility of detecting and identifying one with next-generation gamma-ray instruments, such as the Cherenkov Telescope Array.
