

Cockcroft Institute Seminar

Ultra high cosmic rays and their origins

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Walton Rooms A & B, The Cockcroft Institute

Abstract

In this talk I will review observational features of cosmic rays, their origins, propagation, and discuss results from Pierre Auger observatory. I will describe the GZK cut-off, and discuss astrophysical sources for accelerating the primary nucleon. I will also discuss various exotic particle physics mechanisms including possible tests for Lorentz violating theories, which might evade GZK bound, and describe how can they confront the present data.