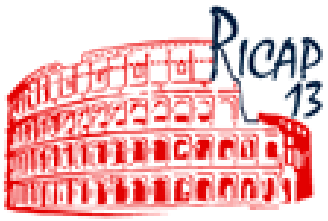


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# Muon puzzle in cosmic ray experiments and its possible solution

*Thursday, 23 May 2013 14:45 (15)*

The term “muon puzzle” was finally formulated at International Symposium on Future Directions in UHECR Physics in CERN 13-16 February 2012. In this talk various aspects of muon puzzle and brief history of their appearance are considered. It is possible to separate two types of experimental results: an excess of muon bundles which is increasing with energy of primary particles, and excess of very high energy muons in muon energy spectrum. One of the possible (and realistic) solutions is the hypothesis about generation of blobs of quark-gluon matter with large orbital momentum in nucleus-nucleus interactions at energies above the knee. Propositions how to check this hypothesis are discussed.

## Summary

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