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“Some consequences of the results of cosmic ray investigations above the knee for LHC experiments ”

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During last tens years many unusual results which are very difficult to explain in frames of existing theories and models were obtained in cosmic ray investigations. But it is possible to explain all these results if to suppose that some new state of matter with effective mass about TeV and with large orbital momentum appears. This new state of matter can be, for example, quark-gluon plasma, some specific resonance state, principally new short-lived particle and even Higgs boson with very large mass (about TeV).
In this talk, explanations of various unusual cosmic ray events in frame of this hypothesis are given and consequences for accelerator physics experiments (first of all, at LHC) are considered.

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O

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