## Sixteenth Marcel Grossmann Meeting



Contribution ID: 35

Type: Talk in the parallel session

## Strong cosmic censorship theorem in Bakry-Emery spacetimes

Monday, 5 July 2021 18:00 (30 minutes)

A class of naked strong curvature singularities is ruled out in Bakry-Emery spacetimes by using techniques of differential topology in Lorentzian manifolds.

These spacetimes adimit a Bakry-Emery-Ricci tensor which is a generalization of the Ricci tensor. This result supports to validity of Penrose's strong cosmic censorship conjecture in scalar-tensor gravitational theories, which include dilaton gravity and Brans-Dicke theory.

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**Session Classification:** Topological Methods, Global Existence Problems, and Spacetime Singularities

**Track Classification:** Early Universe: Topological methods, global existence problems, and spacetime singularities