Gravitational physics and its mathematical analysis



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Extremal black hole formation as a critical phenomenon

Tuesday 4 June 2024 10:30 (1 hour)

I will present a proof that extremal black holes arise on the threshold of gravitational collapse. More precisely, I will present a construction of one-parameter families of smooth solutions to the Einstein-Maxwell-charged Vlasov system which interpolate between dispersion and collapse and for which the critical solution is an extremal Reissner-Nordström black hole. This is joint work with Christoph Kehle (ETH Zürich).

Presenter: UNGER, Ryan