Black hole non-linear stability: an overview

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Black holes are the most striking predictions of General Relativity and are by now understood to be fundamental objects in our universe. In this talk, I will provide an overview of their mathematical properties, in particular concerning their stability as solutions to the Einstein equation, and give a bird's-eye view of the recent proof of the nonlinear stability of the slowly rotating Kerr black holes (joint with Klainerman-Szeftel).

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