ID de Contribution: **5**                                                   Type: **Non spécifié**

# Leading-order term expansion for the Teukolsky equation on subextremal Kerr black holes

*jeudi 1 février 2024 10:00 (30 minutes)*

The study of wave propagation on black hole spacetimes has been an intense field of research in the past decades. This interest has been driven by the stability problem for black holes and by questions related to scattering theory. In the analysis of Maxwell's equations and the equations of linearized gravity, the focus often shifts to the study of the Teukolsky equation, which offers the advantage of being scalar in nature. I will present a result providing the large time leading-order term for initially localized and regular solutions and valid for the full subextremal range of black hole parameters. I will also discuss some aspects of the proof which relies on recent advances in spectral and microlocal analysis.

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