

IBS CTPU-CGA 2025 Workshop on Quasi Normal Mode and Black Hole Perturbation

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Invited Talk: Huan Yang (Title: Nonlinear black hole ringdowns)

Tuesday, 27 May 2025 10:45 (45 minutes)

Title: Nonlinear black hole ringdowns

Abstract: In this talk, I will discuss recent progress in characterizing second order quasinormal modes of rotating black holes. This includes two independent ways of computing the mode-mode coupling coefficients, which lead to consistent results. A parameter survey shows that multiple 2nd-order modes may be detectable for 3G ground-based detectors and space-borne gravitational wave detectors. If time permits, I will also mention some ongoing work on quasinormal mode tomography.