Frontiers in Numerical Relativity 2022 (FNR2022)



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Numerical evolution of Good-Bad-Ugly-F system as a toy model for hyperboloidal numerical relativity

Thursday, 28 July 2022 09:15 (15 minutes)

The numerical solution of a system of hyperbolic PDEs all the way to future null infinity requires the knowledge of asymptotics. The Good-Bad-Ugly-F model is known to mimic the asymptotic properties of Einstein equations in generalized harmonic gauge. In this talk I will present the results of numerical evolution of this system, both in spherical symmetry and full 3D, with the scope of using these ideas to incorporate the hyperboloidal approach in numerical relativity simulations.

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Session Classification: Short talks