Abstract Submitted
for the APR05 Meeting of
The American Physical Society

Scalar perturbations of higher-dimensional rotating and ultra-spinning black holes[1] GEORGE SIOPSIS, University of Tennessee, VITOR CARDOSO, Universidade de Coimbra, Portugal, SHIJUN YOSHIDA, Waseda University. Japan — We investigate the stability of higher-dimensional rotating black holes against scalar perturbations. In particular, we make a thorough numerical and analytical analysis of six-dimensional black holes, not only in the low rotation regime but in the high rotation regime as well. Our results suggest that higher dimensional Kerr black holes are stable against scalar perturbations, even in the ultra-spinning regime.

[1]Supported in part by the DoE under grant DE-FG05-91ER40627

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Date submitted: 13 Jan 2005 Electronic form version 1.4