

Abstract Submitted
for the APR06 Meeting of
The American Physical Society

Binary Black Hole Evolutions with Moving Punctures: Final orbits, merger and ringdown. WOLFGANG TICHY, PEDRO MARRONETTI, Florida Atlantic University, BERND BRUEGMANN, University of Jena — We present results of simulations of black hole binaries in circular orbits covering the last orbit and the merger and ringdown phases. These simulations are performed using the BSSN formulation and the recently introduced “moving punctures” technique. We compare different implementations of this technique and discuss how they affect convergence. We also cover in detail the results of our orbiting punctures simulations and their dependence on grid size and resolution. In addition, we discuss quality control curves and constraint satisfaction.

Wolfgang Tichy
Florida Atlantic University

Date submitted: 12 Jan 2006

Electronic form version 1.4