Abstract Submitted
for the APR07 Meeting of
The American Physical Society

Efficient binary black hole simulations[1] WOLFGANG TICHY, Florida Atlantic University, PEDRO MARRONETTI, BERND BRUEGMANN, JOSE GONZALEZ, MARK HANNAM, SASCHA HUSA, ULRICH SPERHAKE
— We present results of simulations of spinning black hole binaries in circular orbits, which cover several orbits as well as the merger and ringdown phases. These simulations are performed using a moving punctures implementation within the BAM code. This code uses moving mesh refinement boxes. It is so efficient that our simulations can be performed on dual processor workstations. In particular, we compute the initial and final ADM mass and angular momentum and show their dependence on grid size and resolution. In addition, we discuss quality control curves and constraint satisfaction.

[1]This work was supported by NSF grant PHY-0555644

Wolfgang Tichy
Florida Atlantic University

Date submitted: 12 Jan 2007 Electronic form version 1.4