Asymptotically matched quasicircular binary black hole initial data WILLIAM THROWE, Cornell University — We demonstrate initial data for binary black hole simulations based on asymptotically matching a generic post-Newtonian binary metric with tidally deformed Schwarzschild solutions. These data have been evolved using the Spectral Einstein Code (SpEC) and have been shown to result in reduced junk radiation and smaller mass drift than our previous initial data sets. The use of a generic post-Newtonian binary metric for the near-field region allows us to adjust the eccentricity of simulated binaries, allowing for quasicircular simulations with eccentricities similar to those produced by previous initial data sets.

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