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GPU based SPH simulations of the compact binary coalescence STOU SANDALSKI, PRASHANTH JAIKUMAR, CSULB — Quark stars represent one possible path of evolution for large neutron stars. With the increasing availability of powerful commodity hardware with massively-parallel computing capabilities (i.e. GPUs) it is becoming possible to run medium to large scale hydrodynamic simulations on inexpensive hardware. One algorithm particularly well suited for the GPU is Smooth Particle Hydrodynamics (SPH). We investigate the coalescence of binary compact objects using a GPU based SPH code.

Stou Sandalski
CSULB

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