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Thermodynamics of pair black holes in a static deSitter spacetime with matter DIPESH BHANDARI, MICHAEL CRESCIMANNO, Department of Physics and Astronomy, Youngstown State University — Most multi-blackhole static spacetime solutions make use of special (extremal) limits, symmetries and non-gravitational fields. We analyze the semiclassical thermodynamics of static solutions we have found consisting of antipodal uncharged black hole pairs of different masses in 3+1 dimensional deSitter space supplied with regular matter in stable orbits. These solutions provide a closed, static instances of ordinary Einstein gravity with which to address aspects of non-stationary semiclassical gravitational effects (e.g. the Hawking process).

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