Abstract Submitted
for the APR16 Meeting of
The American Physical Society

Black Hole Battery JANNA LEVIN, Barnard College of Columbia University, DANIEL D'ORAZIO, Columbia University — Black holes are dark dead stars. Neutron stars are giant magnets. As the neutron star orbits the black hole, an electronic circuit forms that generates a blast of power just before the black hole absorbs the neutron star whole. The black hole battery conceivably would be observable at cosmological distances. Possible channels for luminosity include synchro-curvature radiation, a blazing fireball, or even an unstable, short-lived black hole pulsar. As suggested by Mingarelli, Levin, and Lazio, some fraction of the battery power could also be reprocessed into coherent radio emission to populate a subclass of fast radio bursts.

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Date submitted: 08 Jan 2016 Electronic form version 1.4