Origin of Antimatter Cloud Discovered

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U.S. astronomers said the origin of a giant cloud of antimatter surrounding the galactic center of the Milky Way has been traced to binary stars.

The findings, published in the journal Nature, said observations from the European Space Agency's Integral satellite shows an imbalance that matches the distribution of a population of binary star systems that contain black holes or neutron stars, NASA said in a release Wednesday.

Scientists said the finding suggests the binaries are churning out at least half of the antimatter.

The reported Integral detection of an asymmetry represents a significant step forward toward a solution of one of the major outstanding problems in high-energy astrophysics. I think I can hear a collective sigh of relief emanating from the community, Marvin Leventhal, a University of Maryland professor emeritus, said in a statement.

The cloud itself is roughly 10,000 light-years across and generates the energy of about 10,000 suns, the report said.