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Binary Orbital Motion of Electrically Charged Spheres in Weightlessness.[1] LULU LI, BRAD ATKINS, GAVIN FRANKS, JOSHUA FUCHS, CHASE SLIGER, JENNIFER THOMPSON, RHODES BINARY ORBIT TEAM — The similar mathematical forms of Coulombs' Law of Electrostatics and Newton's Law of Gravitation predict that two oppositely charged spheres should be able to move in a binary orbit about their center of mass using only the electric force as the force of attraction. To test this prediction, we conducted an experiment in July 2008 aboard a specialized C-9B aircraft in NASA's Microgravity University Program which simulates the conditions of weightlessness. We successfully achieved multiple binary orbits between the two spheres. The orbital motion was analyzed using VideoPoint software to measure the orbital interaction of the spheres.

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Lulu Li

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