

Abstract Submitted  
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**Demonstrating Levitation and Suspension of a Superconductor on a Magnetic Track**<sup>1</sup> CHARLES P. STREHLOW, M.C. SULLIVAN, Ithaca College — The suspension and levitation of superconductors by permanent magnets is one of the most fascinating consequences of superconductivity, and a wonderful instrument for generating interest in low temperature physics. We present a novel classroom demonstration of the levitation/suspension of a superconductor over a magnetic track that maximizes levitation/suspension time, separation distance between the magnetic track and superconductor as well as insulator aesthetics. A theoretical explanation of the levitation/suspension and a simple mathematical model of the lateral restoring forces are discussed.

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