

Abstract Submitted  
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**Microwave Resonant Activation of MgB2 Thin Film Josephson Junction**<sup>1</sup> ROBERTO RAMOS, JOSEPH LAMBERT, STEVEN CARABELLO, JEROME MLACK, ZECHARIAH THRAILKILL, Drexel University — While in the superconducting state, a current-biased Josephson junction behaves like a non-linear resonator. Using the picture of a washboard potential, the phase particle oscillates within the well. When the junction is biased near its critical current. Under microwave radiation, this phase particle can be resonantly activated and made to escape. We will report results of the first microwave resonant activation of MgB2 thin film Josephson junctions at sub-Kelvin temperatures. By manipulating microwave frequency and power, we are able to control the state of the system.

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