

Abstract Submitted
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Periodic critical current pattern in the superconductor-graphene-superconductor junction induced by the current in one of the leads ULAS COSKUN, UT Dallas, IVAN BORZENETS, GLEB FINKELSTEIN, Duke University — We have formed superconducting metal contacts to graphene, resulting in supercurrent through graphene visible up to several degrees Kelvin. In our geometry, graphene bridges a gap between two closely spaced superconducting wires. We have found that passing a current along the length of one of the wires periodically modulates the magnitude of the supercurrent through graphene. We discuss the origins of the observed interference patterns

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