

Abstract Submitted  
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**Spin transport in the  $\nu = 0$  quantum Hall state of graphene<sup>1</sup>**

SO TAKEI, City University of New York Queens College, AMIR YACOBY, BERTRAND HALPERIN, Harvard University, YAROSLAV TSERKOVNYAK, University of California Los Angeles — The ground state of neutral monolayer graphene in a strong perpendicular magnetic field is believed to be the so-called canted antiferromagnetic  $\nu = 0$  quantum Hall state. This state is an insulator for charge transport, but it should behave like a superfluid for transport of the spin component parallel to the magnetic field. Here, we have proposed an experiment to demonstrate this effect.

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