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Are Dirac bosons different from Dirac fermions?

Honeycomb materials are being rediscovered at a rapid rate, and they include both conductors, such as graphene, and insulators. Among the latter are the transition metal trihalides which can also display magnetism, where the Dirac particles are magnons. This means that we can now examine bosonic as well as fermionic Dirac systems. The multiple site occupancies allowed for bosons but not for fermions lead to dispersive surface and edge states in the non-interacting limit. The many-body corrections to the magnon self energies also differ strongly from those for the electrons in graphene, and agree with measurements performed nearly 50 years ago on CrBr₃.

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