

Abstract Submitted  
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**Graphene under magnetic and generalized strain SU(2) gauge fields**<sup>1</sup> ENRIQUE MUNOZ, Pontificia Universidad Catolica de Chile, RODRIGO SOTO, Universidad San Sebastian — We consider single-layer graphene, submitted to a combination of an external magnetic field, as well as generalized SU(2) gauge fields [1,2] arising from mechanical strain and charge density waves. We obtained analytical solutions for the spectrum, as well as for the eigenstates of the Hamiltonian describing the system. Moreover, we studied electronic transport through a region submitted to this field configuration by a Landauer approach, where the transmission function is obtained as the solution of a two-dimensional scattering problem. References [1] S. Gopalakrishnan, P. Ghaemi, and S. Ryu, Phys. Rev. B 86, 081403 (2012) [2] F. J. Pena and E. Munoz, Phys. Rev. E 91, 052152 (2015)

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