

Sergio E. Ulloa — PUBLICATIONS

Author/co-authors of 250+ publications on different areas in condensed matter theory;
 \approx 4,000 ISI citations; ISI h-index=33. For work posted at the arXiv, please go to this link here.

- **Publications in Refereed Journals**

204. A. Luican-Meyer, Y. Zhang, A. DiLullo, Y. Li, B. Fisher, **S. E. Ulloa**, and S.-W. Hla, *Negative differential resistance observed on the charge density wave of a transition metal dichalcogenide*, *Nanoscale* **11**, 22351 (2019).
203. Y. Zhang, J. P. Calupitan, T. Rojas, R. Tumbleson, G. Erbland, C. Kammerer, T. Ajayi, S. Wang, L. A. Curtiss, A. T. Ngo, **S. E. Ulloa**, G. Rapenne, and S.-W. Hla, *A chiral molecular propeller designed for unidirectional rotations on a surface*, *Nature Commun.* **10**, 3742 (2019).
202. D. Zhai, K. Ingersent, **S. E. Ulloa**, and N. Sandler, *Sublattice symmetry breaking and Kondo-effect enhancement in strained graphene*, arXiv:1808.08285; *Phys. Rev. B* **99**, 195410 (2019).
201. O. Ávalos-Ovando, D. Mastrogiuseppe, and **S. E. Ulloa**, *Lateral heterostructures and one-dimensional interfaces in 2D transition metal dichalcogenides*, Invited Topical Review, *J. Phys.: Condens. Matt.*, **31**, 213001 (2019).
200. O. Ávalos-Ovando, D. Mastrogiuseppe, and **S. E. Ulloa**, *Lateral interfaces of transition metal dichalcogenides: A stable tunable one-dimensional physics platform*, arXiv:1808.09402; *Phys. Rev. B* **99**, 035107 (2019).
199. N. Cortés, O. Ávalos-Ovando, L. Rosales, P. A. Orellana, and **S. E. Ulloa**, *Tunable spin-polarized edge currents in proximitized transition metal dichalcogenides*, arXiv:1807.05316; *Phys. Rev. Lett.* **122**, 086401 (2019).
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196. S. Singh, A. M. Alsharari, **S. E. Ulloa**, and A. H. Romero, *Proximity-induced topological transition and strain-induced charge transfer in graphene/MoS₂ bilayer heterostructures*, arXiv:1806.11469; In *Handbook of Graphene Set* (eds. E. Celasco, A.N. Chaika, T. Stauber, M. Zhang, C. Ozkan, C. Ozkan, U. Ozkan, B. Palys and S.W. Harun (Wiley, NY, 2019) Vol. III, pp. 1–28 (2019).
195. T. Rojas and **S. E. Ulloa**, *Energetics and electronic structure of native point defects in antiferromagnetic of CrN*, arXiv:1805.09405; *Phys. Rev. B* **98**, 214111 (2018).
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193. A. M. Alsharari, M. M. Asmar, and **S. E. Ulloa**, *Proximity-induced topological phases in bilayer graphene*, arXiv:1802.04396; *Phys. Rev. B* **97**, 241104(R) (2018).
192. E. Cota and **S. E. Ulloa**, *Spin-orbit interaction and controlled singlet-triplet dynamics in silicon double quantum dots*, *J. Phys.: Condens. Matt.* **30**, 295301 (2018).

191. O. Ávalos-Ovando, D. Mastrogiuseppe, and **S. E. Ulloa**, *Long range of indirect exchange interaction on the edges of MoS₂ flakes*, arXiv:1607.08553; J. Phys.: Condens. Matt. **30**, 045801 (2018).
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