

Abstract Submitted
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Superconducting gap symmetry of strained Sr_2RuO_4 OLIVIER GINGRAS, Univ of Montreal, REZA NOURAFKAN, Univ of Montreal/Univ of Sherbrooke, ANDRÉ-MARIE TREMBLAY, Univ of Sherbrooke, MICHEL CÔTÉ, Univ of Montreal — The superconducting gap symmetry of Sr_2RuO_4 is still under debate. Even though many experimental evidences suggest a chiral p-wave symmetry, others would rather support a d-wave symmetry¹. Recently, it was shown that the uniaxial or biaxial strain can be employed to induce a Lifshitz transition in this compound. The ARPES results of the strained Sr_2RuO_4 have shown that the Fermi level could be brought very close to van Hove singularities, leading to a change in the Fermi surface topology and strong variations of the quasi-particle mass enhancement^{2,3}. Such a drastic change in the electronic structure of the system should influence the competition between different pairing symmetries. In our study, we used DFT+DMFT calculation to investigate the effect of strain on the spin excitation spectra of Sr_2RuO_4 and in turn the spin fluctuation mediated pairing interaction.

¹E. Hassinger *and al*, arXiv:1606.04936

²Y. Hsu *and al*, Phys. Rev. B **94**, 045118 (2016)

³B. Burganov *and al*, Phys. Rev. Lett. **116**, 197003 (2016)

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