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Pairing Correlations in the two-layer attractive Hubbard Model ALEKSANDER ZUJEV, PINAKI SENGUPTA, Nanyang Technological University, RICHARD SCALETTAR, UC Davis — Quantum Monte Carlo (QMC) is used to study pairing correlations in a two-layer Hubbard Model in which one layer is attractive ($U < 0$), and the other uncorrelated ($U = 0$). We provide a detailed characterization of how superconductivity in the $U < 0$ layer induces pairing in the $U = 0$ layer, as a function of the interlayer hopping, density, temperature, and on-site attraction strength in the $U < 0$ layer. QMC data are complemented by calculations within the Bogoliubov - de Gennes approximation.

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