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Pairing glue at finite temperature in high-temperature superconductors A. REYMBAUT, RQMP, Phys. Dept. Université de Sherbrooke, QC J1K 2R1, G. SORDI, Phys. Dept. HTC, Royal Holloway, U. London, TW20 0EX, D. BERGERON, P. SÉMON, M. CHARLEBOIS, RQMP, Phys. Dept. Université de Sherbrooke, QC J1K 2R1, A.-M.S. TREMBLAY, RQMP, Phys. Dept. Université de Sherbrooke, QC J1K 2R1 and CIFAR, ON M5G 1Z8 — Even though the presence of a magnetic pairing glue analogous to the phonon glue of conventional superconductivity has been documented in the weak to intermediate correlation regime, the strong-correlation limit is still largely unexplored.[1] One of the best ways to access the frequencies relevant for the unconventional pairing dynamics present in doped Mott insulators is to study the anomalous spectral function associated with the frequency-dependent Gorkov function. Already studied at zero temperature,[2-4] that anomalous spectral function is difficult to obtain at finite temperature when one needs maximum entropy continuation methodology.[5] Indeed, this method requires a non-negative spectral function. In this talk we present the solution to this problem. Then we show our results for the Hubbard model on a 2×2 cluster solved with Cluster Dynamical Mean Field Theory (CDMFT) using Continuous-Time Quantum Monte-Carlo (CTQMC) in the hybridization expansion as an impurity solver.

[1] P. W. Anderson, *Science* 316, 1705 (2007). [2] T. A. Maier, et al., *Phys. Rev. Lett.* 100, 237001 (2008). [3] B. Kyung, et al., *Phys. Rev. B* 80, 205109 (2009). [4] D. Sénéchal, et al., *Phys. Rev. B* 87, 075123 (2013). [5] M. Jarrell and J. Gubernatis, *Phys. Reports* 269, 133 (1996).

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