Rodrigo Matos* (matosrod@msu.edu), 619 Red Cedar Road, C531, East Lansing, MI 48824, and Jeffrey Schenker. Localization for the Hubbard model in the Hartree approximation via fractional moments.

We are interested in localization for systems of infinitely many interacting particles. Using the fractional moment method it is shown that, within the Hartree approximation for the random Hubbard Hamiltonian, fermions at positive temperature exhibit localization, suitably defined as exponential decay of eigenfunction correlators, in the regime of large disorder and weak interaction. (Received August 18, 2018)