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Metal and insulator coexistence region in disordered correlated systems M.C.O. AGUIAR, Center for Materials Theory, Serin Physics Laboratory, Rutgers University, 136 Frelinghuysen Road, Piscataway, New Jersey 08854, V. DOBROSAVLJEVIC, Department of Physics and National High Magnetic Field Laboratory, Florida State University, Tallahassee, FL 32306, E. ABRAHAMS, G. KOTLIAR, Center for Materials Theory, Serin Physics Laboratory, Rutgers University, 136 Frelinghuysen Road, Piscataway, New Jersey 08854 — In this work we present the phase diagram for the Mott transition in the presence of disorder at finite temperature. We show that the temperature end point of the metal and insulator coexistence region decreases and that the coexistence region moves towards larger interaction potential when disorder increases. Our results also indicate that the width of the coexistence region at zero temperature and the temperature critical end point scale in the same way with disorder.

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