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Title:	Logarithmic coarsening in the Coulomb glass
Authors:	Bhandari, P. (/jspui/browse?type=author&value=Bhandari%2C+P.) Malik, V. (/jspui/browse?type=author&value=Malik%2C+V.) Puri, S. (/jspui/browse?type=author&value=Puri%2C+S.)
Keywords:	Comprehensive Monte Carlo study
Issue Date:	2019
Publisher:	American Physical Society
Citation:	Physical Review E, 99(5).
Abstract:	We present numerical results from a comprehensive Monte Carlo study in two dimensions ( $d=2$ ) of coarsening kinetics in the Coulomb glass (CG) model at half-filling. The CG model is characterized by spin-spin interactions which are long-range Coulombic and antiferromagnetic. For the nonequilibrium properties studied by us (spatial correlation functions and domain growth laws), we find that domain growth in the CG is analogous to that in the nearest-neighbor random-field Ising model. The domain length scale $L(t)$ shows a crossover from a regime of "power-law growth with a disorder-dependent exponent" [ $L(t) \sim t^{1/z}$ ] to a regime of "logarithmic growth with a universal exponent" [ $L(t) \sim (\ln t)^{1/\psi}$ ].
URI:	<a href="https://journals.aps.org/pre/abstract/10.1103/PhysRevE.99.052113">https://journals.aps.org/pre/abstract/10.1103/PhysRevE.99.052113</a> ( <a href="https://journals.aps.org/pre/abstract/10.1103/PhysRevE.99.052113">https://journals.aps.org/pre/abstract/10.1103/PhysRevE.99.052113</a> ) <a href="http://hdl.handle.net/123456789/2032">http://hdl.handle.net/123456789/2032</a> ( <a href="http://hdl.handle.net/123456789/2032">http://hdl.handle.net/123456789/2032</a> )
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