

Abstract Submitted  
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**Order and Creep in Flux Lattices and CDWs Pinned by Planar Defects** ALEKSANDRA PETKOVIC, THOMAS NATTERMANN, Institute of Theoretical Physics, University of Cologne, Zùlpicher Str. 77, 50937 Kùln, Germany — The influence of randomly distributed point impurities *and* planar defects on the order and transport in type-II superconductors and related systems is considered theoretically. For random planar defects of identical orientation the flux line lattice exhibits a new glassy phase with diverging shear and tilt modulus, a transverse Meissner effect, large sample to sample fluctuations of longitudinal magnetic susceptibility and an exponential decay of translational long range order. The flux creep resistivity for currents  $J$  parallel to the defects is  $\rho(J) \sim \exp -(J_0/J)^\mu$  with  $\mu = 3/2$ . Strong disorder enforces an array of dislocations to relax shear strain.

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