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Interactions Effects and Effective Temperature in Driven Vortex Fluids with Random Pinning ALEJANDRO KOLTON, Université de Genève, DPMC, 24 Quai Ernest Ansermet, CH-1211 Genève 4, Switzerland, DANIEL DOMÍNGUEZ, Centro Atómico Bariloche, 8400 Bariloche, Argentina. — We study numerically the effects of vortex-vortex interactions on the fluctuation-dissipation relations of driven vortex fluids with random pinning. We show that the shaking temperature T_{sh} defined phenomenologically by Koshelev and Vinokur [1] corresponds to the effective transverse temperature T_{eff} defined from a generalized fluctuation-dissipation theorem [2,3] only in the limit of noninteracting vortices. T_{eff} is thus sensible to the short range anisotropic correlations in the driven fluid. In the non-interacting limit we use a simple model to derive an expression for T_{eff} which is valid for all finite velocities. [1] A.E. Koshelev and V.M. Vinokur, Phys. Rev. Lett. **73**,3580 (1994). [2] L.F. Cugliandolo, J. Kurchan, and L. Peliti, Phys. Rev. E **55**, 3898 (1997) [3] A. B. Kolton *et al.*, Phys. Rev. Lett. **89**, 227001 (2002).

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