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C-Axis Conductivity of a Layered Superconductor in a Transverse Magnetic Field SHIMUL AKHANJEE, ROBERT KONIK, CMPMS Dept. Brookhaven National Laboratory — We study the temperature and field dependence of Josephson pair tunneling between parallel superconducting films in the presence of a transverse magnetic field, modeled as a 2+1 dimensional XY model, transformed under the Villain duality. The magnetic field-induced diamagnetism is treated using a variational scheme developed by Benfatto et. al (2007) and the conductivity is described in terms of correlations between quantum phase slip events. We find that the universal point contact conductivity is modified by characteristic power laws.

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