

Abstract Submitted
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Vortex Pinning in a Superconducting Thin Film Pierced by Ferromagnetic Columnar Defects M. AMIN KAYALI, Baylor College of Medicine
— Using London's approximation, I study spontaneous creation of vortices in a superconducting thin film pierced by ferromagnetic columnar defects. The magnetic fields, screening current and pinning force are calculated for the case when the film is pierced by one ferromagnetic columnar defect then I generalize the results for to study the effect of a square array of such defects on superconductor.

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