Abstract Submitted
for the MAR05 Meeting of
The American Physical Society

**Dependence of the intrinsic noise properties of Nb/AlOx/Nb-junctions on the manufacturing geometry** PASI KIVINEN, Department of Physics, University of Jyvaskyla, P.O. Box 35, 40014 Jyvaskyla, Finland, SORIN PARAOANU, ARI HALVARI, PAIVI TORMA — We have studied different Nb/AlOx/Nb-junctions and their $1/f$ -noise properties. We compare the results with Al-based junctions and SETs and discuss the role of the sample geometry and the underlying substrate. At certain bias voltages, which is specific for each sample, the Nb-based junctions have an anomalous AC-current, which frequency strongly depends on the applied bias voltage.

Pasi Kivinen
Department of Physics, University of Jyvaskyla
P.O. Box 35, 40014 Jyvaskyla, Finland

Date submitted: 16 Dec 2004

Electronic form version 1.4