

Abstract Submitted  
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**Anisotropic magnetoresistance in  $\text{LaAlO}_3/\text{SrTiO}_3$  (111) interface**

PRASANNA ROUT, ISABEL AGIREEN, ERAN MANIV, MOSHE GOLDSTEIN, YORAM DAGAN, Tel Aviv University — The oxide interfaces can be tailored by controlling the crystal symmetry, which can be achieved by changing the crystallographic orientation of the interface. For example, the  $\text{LaAlO}_3/\text{SrTiO}_3$  (111) interface has a hexagonal symmetry in contrast to fourfold symmetry of (100) and (110) interfaces. Here, we present the in-plane anisotropic magnetoresistance (AMR) measurements of  $\text{LaAlO}_3/\text{SrTiO}_3$  (111) interface. Our AMR data indicates the presence of crystalline six-fold anisotropic component due to the symmetry of the interface. Moreover, we observe an additional uniaxial AMR contribution, which presumably originates from the domain boundaries present in  $\text{SrTiO}_3$  substrate.

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