



中科院院士

长江学者特聘教授

杰青科学基金获得者

师资名录

博士后

行政服务

高春雷 特别研究员

高春雷

高春雷，研究员，博士生导师。2000年复旦大学物理系获学士学位。2006年在德国马普微结构研究所师从Prof. Kirschner获得物理学博士学位。博士毕业后在马普微结构研究所领导自旋极化STM研究方向至2009年2月。2009年3月被上海交通大学物理系聘为研究员。研究领域主要包括用低温STM研究热电子注入导致的在磁性薄膜和纳米结构中的磁性元激发，用自旋极化STM研究复杂非线性磁结构，涉及超高真空外延，自组织生长和原子操控制备的磁性薄膜及纳米结构。在Physical Review Letters上发表相关论文6篇。

论文选列：

9. Pd atomic chains formation as a result of sub-monolayer deposition of 3d metals on Pd(110)

D. H. Wei, C. L. Gao(通讯作者), Kh. Zakeri, and M. Przybylski, Physical Review Letters (2009) (即将刊登)

8. Investigation of non-collinear spin states with scanning tunneling microscopy (Review)

W. Wulfhekel and C. L. Gao, Journal of Physics: Condensed Matter, 2009 (即将刊登)

7. Revealing the 120° antiferromagnetic Néel structure in real space: One monolayer Mn on Ag(111)

C. L. Gao, W. Wulfhekel, J. Kirschner, Physical Review Letters 101, 267205 (2008)

6. Spin wave dispersion on the nanometer scale

C. L. Gao, A. Ernst, G. Fischer, W. Hergert, P. Bruno, W. Wulfhekel, and J. Kirschner, Physical Review Letters, 101, 167201 (2008).

5. Noncollinear surface spin density by surface reconstruction in the alloy NiMn

C. L. Gao, A. Ernst, A. Winkelmann, J. Henk, W. Wulfhekel, P. Bruno, and J. Kirschner, Physical Review Letters 100, 237203 (2008)

4. Self-organized long-period adatom strings on stepped metal surfaces: Scanning tunneling microscopy, ab initio calculations, and kinetic Monte Carlo simulations

H. F. Ding, V. S. Stepanyuk, P. A. Ignatiev, N. N. Negulyaev, L. Niebergall, M. Wasniowska, C. L. Gao, P. Bruno, and J. Kirschner, *Physical Review B* 76, 033409 (2007)

3. Mapping the surface spin structure of large unit cells: Reconstructed Mn films on Fe(001)

C. L. Gao, U. Schlickum, W. Wulfhekel, and J. Kirschner, *Physical Review Letters* 98, 107203 (2007)

2. Effect of antiferromagnetic layers on the spin-dependent transport in magnetic tunnel junctions

U. Schlickum, C. L. Gao, W. Wulfhekel, J. Henk, P. Bruno, and J. Kirschner, *Physical Review B* 74, 054409 (2006)

1. Surface magnetism during oxygen-aided Fe homoepitaxy

M. Nyvlt, F. Bisio, J. Franta, C. L. Gao, H. Petek, and J. Kirschner, *Physical Review Letters* 95, 127201 (2005)