## "凝聚态物理-北京大学论坛" 2007-29

时间: 2007年12月27日(星期四)下午15:00-16:40

地 点: 北京大学物理大楼中 212 教室

## 报告题目: Berry phase effects on electric properties

Geometric phase has found wide applications in physics, and has emerged as a unifying concept in describing and predicting electronic properties in solids. In this talk, I will review recent advances on Berry phase effects in insulators, metals, and semiconductors, with topics covering dielectric, magnetic, and transport properties. I will also discuss non-abealian generalization of the geometric phase concept and applications in spin transport.

## 报告人: Professor Qian Niu (牛谦) Department of Physics, UT at Austin, USA

<u>Education :</u> Ph. D. Physics, University of Washington (1985) ; M. S. Physics, University of Washington (1983) ;B. S. Physics, Peking University (1981).

<u>Professional Employment</u> : Trull Centennial Professor, University of Texas (2001-) ; Assistant and Associate Professor, University of Texas (1990-2001) ; Visiting Scientist, UC Santa Barbara (1988-1990) ; Research Associate, University of Illinois (1985--1987).

- 报告人简介: Honors and Services: Fellow of the American Physical Society (1999-). Citation: 'for contributions to the theories of quantum transport'; Wang Kuan Cheng Research Award (1997); Outstanding Overseas Young Scientist (1999, Natural Science Foundation of China); Director of the International Center of Quantum Structures, Beijing (2007-2008). <u>Publication Record:</u> 152 publications in refereed journals (4000+ citations), including 54 in Physical Review Letters, two in Science, one each in Nature, Physics Today, and Physics World. One US patent and a book (Geometric Phase in Quantum Systems); 156 invited talks at professional meetings and research institutions.
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