

“ 凝聚态物理-北京大学论坛 ”

2008-07

时 间： 2008 年 4 月 18 日（星期五）下午 15:00 - 16:40

地 点： 北京大学物理大楼中 212 教室

The Nobel Prize in Physics 2007:

报告题目： **Giant Magnetoresistance**

An idiosyncratic survey of Spintronics from 1963 to the present

报告摘要： Work on magnetic multilayers started in Louis Néel's laboratory in the 1960's, but it was not until one learned from the developments for the growth of semiconductor heterostructures that one achieved in the 1980's high quality metallic multilayers. Once this barrier was overcome it was apparent to Albert Fert and Peter Grünberg that one could alter the magnetic configuration in ferromagnetic metals with moderate magnetic fields, and thereby change their resistivities. I will review the principle ideas and developments that lead to a new field that lies at the intersection between physics and technology. The steps taken by the two physicists to achieve Giant Magnetoresistance (GMR), and the differences in their seminal results, will be discussed.

报告人： Prof. Peter M. Levy, New York University

报告人简介： Professor Levy is one of outstanding physicists and pioneers in spintronics, he has been making important contributions to this newly developed field of physics since 1988. His recent research interest focus on spin-polarized electron transport in solids, magnetically controlled electrical transport throu