

# 凝聚态物理前沿论坛第三十七讲

**报告题目:** 50 Years of Magnetic Semiconductors

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**报告地点:** 固体所小楼2楼报告厅

## 报告内容简介:

Tailoring the properties of semiconductor and magnetic structures has been a driving force of information technology. Effective combination of ferromagnetism with semiconductors has been a longstanding goal of physicists and materials scientists. A brief review of the history of the magnetic semiconductors will be given before presenting our recent results on  $\text{HgCr}_2\text{Se}_4$ , a magnetic semiconductor belonging to the spinel group. The revisit to this “old” material allowed us to gain new insight into its remarkable electron transport properties such as colossal magnetoresistance. The prospect of a new topological phase emerging from this material will also be discussed.

## 报告人简介:

Yongqing Li received his B.S. degree at Tianjin University in 1992, M.S. degree in the Institute of Solid State physics, Chinese Academy of Sciences (CAS) in 1995, and Ph.D. degree at the Florida State University in 2003. During 2003-2005, he did his postdoctoral work at the Center of Spintronics and Quantum Computation, University of California, Santa Barbara. This was followed by a 2-1/2 year stay as a visiting scientist in Department von Klitzing, Max Planck Institute for Solid State Research, Stuttgart. In July 2008, he joined Dan Tsui Laboratory, Institute of Physics (IOP), CAS in Beijing as a full time research fellow sponsored by the Hundred-Talent-Program of CAS. Since 2011, he has been a research group leader on low dimensional electron systems at the IOP. He received an Outstanding Science & Technology Achievement Award of CAS in 2011, and the Distinguished Young Scientist Award from the National Science of Foundation of China in 2014. His recent research has been mainly focused on topological insulators, ultrahigh mobility semiconductor 2D electron systems, and magnetic semiconductors.