



# 北京大学等离子体论坛

**报告题目：** 3D magnetic detection with atomic alignment

**主讲人：** Prof. Huirong Yan  
W3 chair professor at University of Potsdam  
and Leading scientist at DESY (Germany)

**报告时间：** 2020年11月11日（周三）下午16:00

**报告地点：** 北京大学物理学院南楼506

**腾讯会议：** 664 522 3890（会议号）

## 摘要：

It was predicted more than a decade ago that the spectropolarimetry arising from ground state alignment (GSA) traces 3D magnetic field in diffuse medium. Nonetheless, observationally it remained unexplored territory until recently. Here I will review briefly the theory before reporting our first detection of GSA in ISM. The comparison between different absorption line polarimetry confirms the prediction from the GSA theory. 3D magnetic tomography is revealed. In addition, magnetic strength is constrained to be around 100  $\mu\text{G}$ , and thus improving the accuracy by 2 orders of magnitude compared to earlier. The applicability of GSA in various environments will be exhibited.

联系人：郭志彬  
邮箱：zbguo@pku.edu.cn