

凝聚态物理-北京大学论坛

2013年第15期 (No. 290 since 2001)

Plasmon waveguide, cavities and integrated laser circuits

Prof. Xiang Zhang

Abstract: Recent development in scaling down photonics will be discussed. First, theoretical and experimental investigation of passive low loss waveguide using hybrid plasmon design will be presented. We propose a new optical cavity design approach using indefinite medium that has a drastically different scaling law than conventional microcavities, and discuss its experimental demonstrations. Finally we will show an active plasmonic laser circuit that integrated with 5 tiny cavities that multiplexed into a single waveguide-an effort towards integrated photonics at nano-scale.

时间: 9月6日 (星期五) 上午10:00—12:00

地点: 北京大学物理大楼中212教室

About speaker: Xiang Zhang is the Ernest S. Kuh Chaired Professor at the University of California, Berkeley and the Director of the NSF Nano-scale Science and Engineering Center (SINAM). He is a member of the US National Academy of Engineering (NAE), Academia Sinica (Republic of China) and fellow of APS, OSA, AAAS and SPIE. His group's research in optical metamaterials was selected by Times Magazine as "Top 10 Scientific Discoveries in 2008". Xiang Zhang was a recipient of the NSF CAREER Award, Rohsenow Lecturer at MIT, William C. Reynolds Lecturer at Stanford University, Fred Kavli Distinguished Lecturer at Materials Research Society (MRS), SME Dell K. Allen Outstanding Young Engineer Award and ONR Young Investigator Award. He received his BS/MS in physics in Nanjing University, China, and Ph.D from UC Berkeley in 1996 and was on faculty at Pennsylvania State University and UCLA prior returning Berkeley in 2004.

联系人: 沈波教授, 邮箱: bshen@pku.edu.cn