学术报告题目: Spatio-temporal cleaning of a femtosecond laser pulse through

interaction with contra-propagating filaments in air

报告人: Prof. Dr. André Mysyrowicz (Laboratoire d'Optique Appliquée, France)

时间: 7月1号(周一)上午10:00

地点:田家炳南楼 205

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学术报告摘要:

We demonstrate spatio-temporal cleaning of a femtosecond laser pulse impinging on two counter propagating filaments in air. The retro-reflected signal acquires essentially a perfect beam profile. Prepulses present in the incident pulse are also efficiently removed. The performance of the 'filament mirror' with 10-20% reflection efficiency is explained by the unique features of filaments which undergo beam self cleaning and have a sharp intensity threshold for plasma formation.

André Mysyrowicz 教授简介:

André Mysyrowicz obtained his B. S. and Ph.D. in physics from Swiss Federal Institute of Technology (Zürich) in 1963 and 1968. He worked as a postdoc at the University of California in Berkeley during 1973-1975 and as a visiting professor at the Brown University during 1986-1987. He joined the group physics of solids in École Normale Supérieure (Paris) in 1975 and was the leader of the group ILM at the Laboratoire d'Optique Appliquée during 1992-2009. Since 2007, he was an emeritus director of research at the CNRS. He is distinguished in many spheres including excitons, laser filamentation, ultrashort pulse compression, plasma physics, and terahertz. He has published more than 240 papers in refereed journals (including 44 PRL, 1 Science and 1 Physics Report) with >8000 citations. As of now his H-index is 57.