Joint DESY and University of Hamburg Accelerator Physics Seminar

Tuesday, 27.10.2020 16:00

ZOOM video seminar (needs version 5.0+)

A Cryogenically-Formed Capillary Discharge Waveguide for Laser Plasma Acceleration

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Abstract

Laser plasma accelerators have demonstrated acceleration gradients three orders of magnitude greater than those found in conventional machines and thus show promise as the next generation of compact particle accelerators. To achieve large energy gains, optical guiding is required to keep the laser intense over extended distances.

This seminar will review the development and initial guiding results of a novel, cryogenic waveguide formed by depositing nitrous oxide gas onto the inner walls of a sapphire capillary.

W.Hillert, (Univ. HH), I.Agapov (MPY) and M.Vogt (MFL).

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