

ESPRESSO SEMINARS - “LASER DAYS EDITION”

 18 APRIL 2024 |  15:00

 AULA AZZURRA - LNS



SPEAKER

PROF. VICTOR MALKA

Weizmann Institute of Science, ISRAEL

Physics and Applications of Laser Plasma Accelerators

Laser-plasma-based wakefield accelerators are changing the scientific landscape bringing on one side new hopes for emerging applications in medicine and industry,

After introducing the context and the physical processes involved in plasma accelerators and relied on our ability to manipulate relativistic electrons with intense laser, I will report on recent major results obtained at the Weizmann Institute of Science that demonstrate for the first time the real-time visualization of laser-driven nonlinear relativistic plasma wave, its transition to electron-driven wakefield and the femtosecond microscopy of relativistic electron bunch.

This presentation will be followed by a short review of their applications including the status of our EIC project “ebeam4therapy” and of ELI NP before discussing of their perspectives for Science and Society.



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