

Progress Report on Modelling of Laser-Plasma Acceleration

Karoly Nemeth presented a positive referee report from the PRL article that was submitted on Apr. 20, and discussed the most critical question of the report that is about presenting tracked particle trajectories from the PIC calculations for the type of laser plasma accelerator described in the paper. The recently generated trajectories from the PIC calculations indicate the substantial coherence of the trajectories in accordance with the theory described in the paper. Hopefully, after the additions and clarifications the paper will be accepted in PRL.

Also, he briefly described new research finding related to unusual growths of plasma bubbles, due to the presence of pre- or side-pulses of small intensity and an initial theory that aims on explaining the phenomenon.