

I1.001 Laser plasma accelerators

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See the full abstract here:

<http://ocs.ciemat.es/EPS2019ABS/pdf/I1.001.pdf>

The concept of laser plasma accelerators has been proposed by T. Tajima and Dawson in 1979. Through nonlinear theory and PIC simulations it was shown that GV/cm accelerating field should be produced when intense laser pulse interacts with an underdense plasma in the laser wakefield or in laser beat-wave regime. Since then many schemes have been proposed and demonstrated with fields exceeding TV/m peak accelerating field reached in the non-linear regime demonstrated by V. Malka et al. [2]. This talk reports on 4 decades of discoveries on laser plasma accelerators.

Reference

[1] T. Tajima and J. Dawson, Phys. Rev. Lett. 43, 267 (1979).

[2] V. Malka et al., Science 298, 1596 (2002).

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