

Abstract Submitted
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**Radiation Pressure Acceleration by Circularly Polarized Pulses:
Three-Dimensional Dynamics and Angular Momentum Absorption** T.V.
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weg 1, 69117 Heidelberg, Germany, A. MACCHI, polyLAB, CNR/INFM, Pisa,
Italy, F. PEGORARO, University of Pisa — Radiation Pressure Acceleration of thin
plasma targets by Circularly Polarized laser pulses is studied by three-dimensional
particle-in-cell simulations. The use of flat-top intensity profiles is found to be impor-
tant to avoid self-induced transparency and to reach high ion energies. A significant
degree of absorption of the angular momentum of the laser pulse is observed, giving
a signature of irreversible, non-adiabatic effects during the acceleration process.

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