

Abstract Submitted
for the DPP09 Meeting of
The American Physical Society

Relativistic Spherical Wake Wave in Plasma. Relativistic focusing spherical mirror and Schwinger pair production STEPAN BULANOV, ANATOLY MAKSIMCHUK, CUOS, University of Michigan, ALEXEI ZHIDKOV, Central Research Institute of Electric Power Industry, Japan — We report on the analytic and computer simulation study of a relativistic spherical wake wave. Such a wave in the breaking regime, traveling towards the center is able to reflect and focus the incoming radiation and up-shifting its frequency. The reflected and focused electromagnetic pulse can have such high intensity, that it is able to create e^+e^- pairs via Schwinger process.

Stepan Bulanov
University of Michigan

Date submitted: 17 Jul 2009

Electronic form version 1.4