

# PAC09 Abstract

Arno E. Candel

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**Title** Wakefield Simulation of CLIC PETS  
Structure Using Parallel 3D Finite  
Element Time-Domain Solver T3P

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**Author(s)** Arno E. Candel, Andreas C. Kabel, Kwok Ko, Lie-Quan Lee, Zenghai Li, Cho-Kuen Ng, Greg Schussman (SLAC, Menlo Park, California), Igor Syratchev (CERN, Geneva)

**Abstract** In recent years, SLAC's Advanced Computations Department (ACD) has developed the parallel 3D Finite Element electromagnetic time-domain code T3P. Higher-order Finite Element methods on conformal unstructured meshes and massively parallel processing allow unprecedented simulation accuracy for wakefield computations and simulations of transient effects in realistic accelerator structures including two-beam concepts. Applications include simulation of wakefield damping and power extraction of the transfer structure (PETS) and an analysis of the CLIC beam loading compensation scheme.

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*SPMS Author: Matthew Arena — Fermi National Accelerator Laboratory*

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