

Tech-X Corporation invites you to visit us at Booth #11 at the [1st International Particle Accelerator Conference](#), May 23 - 28 in Kyoto, Japan.

We are proud to present our electromagnetic plasma simulation software, VORPAL (<http://vorpal.txcorp.com>). VORPAL 4.0 provides for the first time parallel and multi-core capability to the Windows platform (as with previous versions, VORPAL 4.0 also runs in parallel on the Linux and Macintosh platforms). Let VORPAL 4.0 help you take full advantage of your multi-core desktop computer. Other new capabilities include:

- cylindrical coordinates for electromagnetic simulation
- automated eigenfrequency and eigenmode extraction from time-domain simulation
- new secondary electron models that allow simulations of complex metallic and dielectric boundaries of arbitrary shape without stairsteps
- improved post-processing, including automated import into the VisIt software for advanced visualization

Stop by our table to see a demonstration of any of these new features of VORPAL 4.0. Our technical staff will be available at the booth and will be happy to discuss the details of how VORPAL might fit your modeling needs.

Personnel from Tech-X will be presenting the following paper and posters:

Poster Session TUPEC067

Tuesday May 25, 16:00-18:00

Title: "Models and High-Order Maps for Realistic RF Cavities Using Surface Field Data"

Authors: Dan Tyler Abell, Ilya V. Pogorelov, Peter Stoltz (Tech-X, Boulder, Colorado)

Poster Session TUPEC067

Tuesday May 25, 16:00-18:00

Title: "Simulations of Non-scaling FFAGs Using PTC"

Authors: Dan Tyler Abell, George I. Bell, Andrey V. Sobol (Tech-X, Boulder, Colorado), Alessandro G. Ruggiero, Dejan Trbojevic (BNL, Upton, Long Island, New York)

Poster Session TUPEC068

Tuesday May 25, 16:00-18:00

Title: "Generalized Dispersionless FDTD Algorithm for Cavity Wakefield Modeling"

Authors: Benjamin Cowan, Richard Busby (Tech-X, Boulder, Colorado), John R. Cary (Tech-X, Boulder, Colorado; CIPS, Boulder, Colorado)

Poster Session TUPEC069

Tuesday May 25 at 16:00-18:00

Title: "VizSchema - a Unified Visualization of Computational Accelerator Physics Data"

Authors: Svetlana Shasharina (Tech-X, Boulder, Colorado), John R. Cary (Tech-X, Boulder, Colorado; CIPS, Boulder, Colorado), Marc Durant, David Alexander, Seth Veitzer, Scott Kruger (Tech-X, Boulder, Colorado)

Poster Session THPEC012

Thursday May 27, 16:00-18:00, session THPEC

Title: "Laser Wakefield Simulation using a Speed-of-light Frame Envelope Model"

Authors: Benjamin Cowan, David Leslie Bruhwiler, Kevin Paul, Vahid Houston Ranjbar, Scott Sides (Tech-X, Boulder, Colorado), Estelle Cormier-Michel, Eric Esarey, Cameron Guy Robinson Geddes (LBNL, Berkeley, California)

Poster Session THPEC013

Thursday May 27, 16:00-18:00

Title: "Compact Couplers for Photonic Crystal Laser-driven Accelerator Structures"

Authors: Benjamin Cowan, M.C. Lin, Brian Schwartz (Tech-X, Boulder, Colorado), Eric R. Colby, Robert Joel England, Robert Noble, James Spencer (SLAC, Menlo Park, California), Robert L. Byer (Stanford University, Stanford, California), Christopher McGuinness (Stanford University, Stanford, California; SLAC, Menlo Park, California)