Contribution ID: **343** Type: **Poster Presentation**

Screamer: An Optimized Pulsed-Power Circuit Analysis Tool

Wednesday, 6 July 2016 14:40 (20 minutes)

Screamer was developed to solve a wide range circuits with a focus on pulsed-power systems. Screamer is a highly optimized code written in Fortran 77. We will describe the mathematical foundations of Screamer and show how Screamer uses a wide range of pulsed power circuit elements. Screamer incorporates many physics-based models such as lossy transmission lines, dynamic loads, gas switching, water switching, oil switching, magnetic switching, and magnetically insulated transmission lines, which are important to the high-voltage, pulsed-power community. Additional circuit models or modifications to existing models can be readily implemented in Screamer. Screamer is openly available to the community without restrictions. Screamer runs on the Macintosh, LINUX, and Windows platforms.
*Work supported by Sandia National Laboratories under Purchase Order #1518167.

Primary author: SPIELMAN, Rick B. (Idaho State University)

Session Classification: Poster 1-A

Track Classification: Plasmas, Discharges, and Electromagnetic Phenomena