

Abstract Submitted  
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**Particle-in-cell simulation of field-reversed configuration plasmas with odd-parity rotating magnetic fields<sup>1</sup>** JEFFREY KOLLASCH, Iowa State University, DALE WELCH, Voss Scientific, SAMUEL COHEN, STEPHANE ETHIER, Princeton Plasma Physics Laboratory — Three-dimensional particle-in-cell (PIC) simulations using the Lsp code are being carried out in support of the Princeton Field-reversed Configuration (PFRC) experiment. This poster presents preliminary results using a new particle advancing algorithm currently under development at Voss Scientific, LLC called magnetic implicit (MI). Algorithm performance is compared with prior implicit and explicit particle pushers implemented in Lsp for both the PFRC and simpler test cases. Simulation results and their relevance to current and future FRC fusion research will be discussed.

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