

Abstract Submitted
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Plans for and Progress Towards and Inertial Confinement Fusion Code from the Crestone Project JOHN WOHLBIER, Los Alamos National Laboratory, CHARLES WINGATE, THOMAS MASSER, GREGORY BOWERS, MICHAEL SORICE, LANL, CRESTONE PROJECT CODE TEAM TEAM — The Crestone Project at Los Alamos National Laboratory has recently released *cassio*, a code for use in simulating Inertial Confinement Fusion. The initial release of *cassio* included a radiation hydrodynamics capability, a 3T plasma physics model [1], and a laser ray tracing capability [2], all implemented on an Eulerian AMR mesh. Future enhancements to the code will include higher order radiation transport, improved plasma models (e.g., electron, ion, and radiation temperatures per material in mixed cells), charged particle transport, thermonuclear burn, and conformal AMR meshes to ensure symmetric capsule implosions. In this paper we detail the existing models in *cassio* and lay out our plans for the future code enhancements.

- [1] J.G. Wohlbiere, Los Alamos National Laboratory Report, LAUR pending, (2007).
[2] M. Sorice, Los Alamos National Laboratory Report, LAUR pending, (2007).

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