

2D AND 3D PLASMA MODELING

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ABSTRACT

The XOOPIC code suite is a set of particle-in-cell plasma simulation codes for modeling plasmas in two and three dimensions. XOOPIC includes electrostatic and electromagnetic models, collision models for mixtures of noble gases, and a wide range of boundary conditions which can be specified from an input file without recompiling.

XOOPIC can be used to simulate basic plasma phenomena, microwave-beam devices, gas discharges, flat panel displays, space-science problems, electron and ion optics, fusion devices, and plasma processing sources.

APPLICATIONS

Simulates: basic plasma phenomena, microwave-beam devices, gas discharges, flat panel displays, space-science problems, electron and ion optics, fusion devices, plasma processing sources

ADVANTAGES

- » Runs on a single-processor, symmetric multiprocessor and massively parallel platforms implementing the MPI standard.
- » Includes a graphical user interface that operates on the X11 interface to the Unix and Linux operating systems.

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OTHER INFORMATION

KEYWORDS

computer, software, software:

graphics, engineering

CATEGORIZED AS

» **Computer**

» **Software**

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