

Advances in Modeling of Nonlinear Effects in

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LHCD Experiments

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New modeling

Full wave approach

Full spectrum

Pump depletion

Collisional effects

Exact LH spectral noise

Previous modeling

Eikonal approximation

4-waves interactions

Fixed pump amplitude

Collisionless plasma

Approximated spectral noise

The new modeling confirms that nonlinear instabilities do not prevent LHCD effects at reactor relevant plasma density

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