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Pinched Final Transport for Heavy Ion Fusion

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Pinched Final Transport for Heavy Ion Fusion*

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Several modes for beam propagation inside the target chamber for heavy ion fusion have been considered. Pinched transport modes involve magnetic Z-pinches, which are consistent with small entrance ports, and may offer significant advantages for chamber and final focus magnet protection as well as the relaxation of driver requirements. In this paper, we summarize recent simulations performed on these transport modes, as well as progress on final focus and driver architectures consistent with these transport modes. Particular emphasis will be placed on self-consistent scenarios from accelerator to target.

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