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Magnetized Target Fusion at General Fusion

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Magnetized Target Fusion (MTF) involves rapidly compressing an initial magnetically confined plasma by >300X volume compression. If near adiabatic compression is achieved, the final plasma the plasma can be heated to > 10 keV, and confined inertially to produce interesting fusion energy gain. General Fusion is developing a compression system using pneumatic pistons to collapse a cavity in formed in liquid lead-lithium, heating a plasma target such as a spheromak or spherical toroid trapped in the cavity. With a low-cost driver, straightforward heat extraction, good tritium breeding ratio and excellent neutron protection, the concept is promising as a practical power plant. We will review the plasma formation and compression results achieved so far and our plans moving forwards. Work on the compression system will also be described.

Eligible for student paper award?

No

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