

Abstract Submitted
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Initial results from MAST Upgrade JAMES HARRISON, EURATOM/CCFE — The MAST Upgrade spherical tokamak has unique capabilities to address some of the key issues facing the development of fusion energy. Its main objectives are: 1) development of novel exhaust concepts, 2) contribution to the knowledge base for ITER and 3) to explore potential routes to smaller/cheaper fusion reactors. To fulfil these aims, it is equipped with 19 new poloidal field coils and closed divertors with Super-X capability. The maximum BT has been increased by 50% and the pulse length and I_p have increased to 5s and 2MA respectively. Auxiliary heating is provided by on and off axis NBI. The divertors are diagnosed with probes, bolometers, Thomson scattering, IR, visible imaging and spectroscopy. Fast ion physics studies are enhanced with a new fast ion loss detector. Currently, integrated commissioning is nearing completion; the poloidal field coils in the main chamber are fully operational and the solenoid and toroidal field are close to ready for the experimental campaign. Results from initial plasma operations will be presented and plans for the experimental campaign.

James Harrison
EURATOM/CCFE

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