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Overview of MAST results and future plans BRIAN LLOYD¹, EU-RATOM/UKAEA Fusion Association, Culham Science Centre, Abingdon, OX14 3DB, UK — The MAST experimental programme is focused both on physics studies for ITER and on addressing key issues for the long term potential of the spherical tokamak such as non-solenoidal start-up, current drive and plasma exhaust. ITER physics studies cover confinement scaling, transport physics including the generation and sustainment of transport barriers, pedestal physics, scrape-off layer transport, error fields and performance limiting instabilities such as ELMs, neo-classical tearing modes etc. These studies are carried out in close collaboration with international partners including joint experiments with other devices. Substantial upgrades to MAST have been implemented during the last two years including a new divertor, centre column and error field correction coils as well as many diagnostic enhancements. An upgrade to the neutral beam heating system is well-advanced. An overview of the latest MAST results in the areas described above, exploiting the new MAST capabilities, will be presented together with future plans.

¹For the MAST Team

William Morris UKAEA

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