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Overview of MAST results[1] MARTIN VALOVIC[2], EURATOM/UKAEA Fusion Association, Culham Science Centre, Abingdon, Oxon., UK, MAST TEAM — 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. The ITER physics studies include areas such as: improvement of energy confinement scalings, physics of pellet fuelling and its effects on transport, physics of generation and sustainment of transport barriers, ELM and pedestal physics, scrape-off layer transport, error fields correction and fast particle driven instabilities. Critical research areas for long term application of the spherical tokamak are non-solenoidal start-up, current drive and plasma exhaust. Experiments are carried out in close collaboration with international partners including joint experiments with other devices. Studies are supported by many diagnostic enhancements and an upgrade to the neutral beam heating system. An overview of the latest MAST results in above research topics and future plans will be presented.

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