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Present status of the divertor tokamak test facility PIERO MARTIN, Consorzio RFX and University of Padova, RAFFAELE ALBANESE, University of Naples and CREATE, FLAVIO CRISANTI, ALDO PIZZUTO, ENEA, Dipartimento Fusione e Sicurezza Nucleare, Frascati, Italy, THE DTT TEAM TEAM — The Divertor Tokamak Test facility (DTT)is a superconducting tokamak with 6 T on-axis maximum toroidal magnetic field carrying plasma current up to 5.5 MA in pulses up to 100 s. The D-shaped device is up-down symmetric, with major radius R=2.14 m, minor radius a=0.64 m and average triangularity 0.3. The auxiliary heating power coupled to the plasma at maximum performance is 45 MW, shared between ECRH and ICRH and negative ion beams. DTT is designed with a high level of flexibility, in particular as far as divertor scenarios are concerned. The external coils together with a set of four internal coils will allow to control and optimize the local magnetic configuration in the vicinity of the divertor target. The main divertor magnetic topologies, which can be produced in DTT are the reference single null, double null and snowflake configurations. These can be produced at (or close) to the maximum target plasma current of 5.5 MA, while double super-X may be feasible only at significantly lower current. The DTT coil system also allows for the realization of scenarios with negative triangularity. A 5 MA single null scenario with delta =-0.13 and a double null scenario at 3.5 MA with delta=-0.38 can be produced. This paper will describe the present status of DTT realisation.

Piero MARTIN
Consorzio RFX and University of Padova

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