

Overview of the Divertor Tokamak Test Facility Project

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The Divertor Tokamak Test Facility (DTT) is a new tokamak whose construction has recently been approved by the Italian government. DTT will be a high field superconducting toroidal device (6 T) carrying plasma current up to 6 MA in pulses with length up to 100s, with an up-down symmetrical D-shape defined by major radius $R=2.10$ m, minor radius $a=0.65$ m and average triangularity 0.3. The main role of DTT is to contribute to the development of a reliable solution for the power and particle exhaust in a reactor, a challenge commonly recognised as one of the major issues in the road map towards the realisation of a nuclear fusion power plant. Following the project approval, since June 2017 the design review of DTT has started. This paper will present the device by summarizing its main physics goals and the present status of the design.

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