DTT's Role, Characteristics & Design Status

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Abstract:

The Divertor Tokamak Test facility is an Italian experimental facility under design and construction at ENEA C.R. Frascati. The main goal of DTT is to provide an integrated environment, relevant to DEMO, where testing possible solution tothe power exhaust problem in a tokamak (like for example: i)Plasma facing components technology; ii) Plasma and divertor shape; iii) impurity seeding to increase radiation). In this espect, DTT has been designed to be flexible and adopting technologies relevant to DEMO. After its initial inception in2015, concluded with the publication of the "DTT project proposal", a complete re-baseline has been provided on cluded with the publication of the "DTT Interim Design Report" in2019, aimed at accommodating the request of flexibility coming from the international fusion community. During 2019, the engineering integration activity has started and the first construction contracts have been signed. This paper provides an overview of the integrated design activity towards the realization of the facility within 2025.