

The ITER ECRH Upper Launcher and an outlook to DEMO

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The four ITER electron cyclotron upper launchers are developed in a joint action by several European associations organized in the ECHUL consortium agreement in close collaboration with Fusion for Energy and ITER. They are a key part of the ITER electron cyclotron heating system consisting of a large set of gyrotrons with power supplies providing a maximum power of 20MW to be injected into the plasma, a set of transmission lines and switches and the launching system being plasma facing components. One equatorial launcher provides central current drive while main purpose of the four upper launchers is plasma stabilization, especially of neoclassical tearing modes ($q=2/1$, $q=3/2$). The upper launcher design in its current state will be presented together with an outlook to DEMO.