

Materials Science and Engineering (area A)

- *Reference person:* M. Benedetti

Title: Studies on fatigue life of Additive Manufacturing components for Nuclear Fusion application ^{A10)}

The research activity, funded by INFN Padova and DTT S.c.a.r.l., will be focused on the fatigue life of additively manufactured components made of pure copper and copper alloys (especially CuCrZr). The aim is to characterise in deep the behaviour (especially fatigue resistance) of the material to evaluate the applicability of AMed components in the nuclear fusion field, such as for the creation of the ECRH (mirrors of the TL and Launcher), of the NBI (grid planes of the NBI), as well as for the NIP (Faraday Shielding) parts of the DTT project.