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Nb thick films deposited in multilayer mode onto 6GHz resonant cavities

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Thick films shows the possibility to obtain a mitigation of a Q-slope in Nb on Cu superconductive resonant cavities. In the framework of EASITrain project and CERN-INFN-STFC collaboration, the multilayer technique was applied in order to deposit a 70-microns thick film of Niobium onto 6 GHz seamless copper cavities. In this contribution, we report the results and challenges of the RF characterization and the future developments in order to increase the reproducibility of the 6GHz superconductive cavities performances.

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