

Possibilities of Finite Element Modelling for a Better Understanding of Heat Transfer in Rutherford-Type Cables

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The results obtained with Finite Element models help to better understand the heat transfer mechanism in complex structures, like Nb-Ti Rutherford type cables. With FE models, it is possible to implement the real geometry with different levels of precision, giving the possibility to take into consideration the properties on interfaces between copper, helium and kapton, as well as phase changes in helium and the strongly non-linear behavior of HeII.

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