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Homogenization of HTS Coils and Stacks Using the Foil Conductor Model

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Homogenization techniques are appealing in reducing the computational cost of simulating structures with many stacked high temperature superconductor (HTS) tapes. In this contribution, the foil conductor model is extended to HTS applications with insulated conductors. The model is derived in 2-D with the A–formulation and allows directly imposing the current in the conductors. Preliminary numerical results are presented to verify the model and to ensure that the model constraints are satisfied.

Topic

Innovative methods and tools for modelling large-scale HTS systems

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