Poster Session 1 Scheme

Presenter 37

Wednesday 17 June 2026, 11:55–14:25 (Larch Theatre, Nucleus Building, King's Buildings, Thomas Bayes Rd, Edinburgh EH9 3FG)

Development and Verification of an Analytical Model for Stresses and Strains in ReBCO Pancake Coils	Jurgen Rietberg
Fast numerical Modeling: a stable reduced-order T-A formulation with first-order elements	Hengrui Geng
Electro-Mechanical Fatigue Modeling and Degradation Analysis of No-Insulation HTS Coil	Mattia De Stasio
Electromagnetic-Mechanical Coupling in Elastoplastic Multiscale Modeling of High-Field NI-HTS Magnets with Interface Failure	Hanxiao Guo
Physics-Based to Reduced-Order Modeling of a 4.5 MW HTS Motor for Aircraft Electric Propulsion	Clement Junior KENDEG ONLA
Modified H-A formulation for real-time simulation in large scale no-insulation HTS magnet	Jianhua Liu
Modelling of STEP TF cables with Ansys CFX and Quanscient Allsolve to support novel quench detection approach	Funke Dacosta-Salu
Numerical Investigation into the Strain Evolution of Armored CORC Cables under Bending Loads	Xiangde Zhang
Screening currents FE model coupled with axisymmetric PEEC model of high-field HTS magnets	Nikola Jerance
Numerical Study of Screening Current-Induced Field in Non-planar HTS Coils for Stellarators	Yue Wu
Numerical Limits of B-Field Calculation Methods and their Impact on Critical Current Accuracy	Robert J. Davis
Modelling the interaction between a superconducting tape and different magnet configurations for a dynamo type HTS flux pump	Edgar Lilienthal
Quench Analysis of an 18 T D-Shaped No-Insulation HTS TF Coil	Cedric Korte
Quench Modelling of the STEP TF Sub Scale Model Coil in ANSYS APDL	Sam Tippetts
Describing and understanding the influence of the inhomogeneity of the applied field on the behaviour of an HTS magnetic screen	Philippe Vanderbemden
A Generalised Time-Space Extrusion Framework for Efficient 3D Modelling of HTS Electrical Machines	Mingzhe Sang
Electrical-Magnetic-Thermal Characteristics of the REBCO No-Insulation Coil under Varying Magnetic Field	Rui Kang
Modelling coated conductors with a ferromagnetic substrate	Vladimir Sokolovsky
Localized Electromechanical Characterization of delaminated REBCO tapes	Luca Benedetti
Investigation of magnet arrangements, bulks, and tape stacks for SMBs using the H-φ formulation	Johannes Saske
Electrothermal modeling of REBCO stator coils in superconducting motors under DC fault voltage	Arif Hussain
Delamination model for impregnated REBCO superconducting coils considering random distribution of interfacial strengths	Hanxiao Guo
Quench Modelling of Partially Insulated HTS Coils Using 3D H–φ Formulation	Jiabin Yang
Circuit model for AC loss computation in TSTC HTS fusion cables	Antonio Macchiagodena
Electro-Thermal Quench Modelling of a 2 T Double Pancake HTS Rotor Magnet in a 100 kW Axial-Flux Machine	Muhammad Bin Younas
Modeling the Influence of Parallel Stator Tape Turns on Voltage Generation in an HTS Dynamo	Rafhael de Souza Lima
Fast Modeling of HTS Electrical Machines via an Integral-Form J-Model Coupled with Magnetostatic FEM	Hanlin Zhu
Predicting Joint Resistance of the STEP Toroidal Field Coils using Parametric 2D Modelling of HTS Tape Stacks	Jason Logan
Investigation of the mechanical behavior of HTS racetrack coil for AC application	Arthur Jamois–Le Gouguec
Modeling of Critical Current and Stability in Advanced REBCO Cable Concepts: SECAS and BRAST	Wenzhe Hong
Development of systematic analysis method for critical current, AC loss, and stability of high-field superconducting magnets in fusion devices	Jinxing Zheng
Modeling of an End-Short-Circuited HTS Coil: Comparison between Neumann Boundary Conditions and a Coupled Circuit Model Based on the T–A Formulation	Rui Li
3D numerical analysis of AC loss characteristics of twisted multifilamentary HTS stacks under ramping fields	Zhixuan Zhang
A multiphysics model of the STEP HTS cable SULTAN test	Andrej Horvat
Experimental Study on Cooling High-Temperature Superconducting Coils Using a Liquid-Neon Cryogenic Pulsating Heat Pipe	Boqiang Liu
Optimized Over-Banding for Mitigation of Screening-Current-Induced Strain in No Insulation HTS Magnets	Zhibo Zhao
Modified Power Law using the A based Formulation for Quench Modelling in Axisymmetric Non-Insulated HTS Pancake Coils	Mohammed Sayed Miah