

## Poster Session 2 Scheme

**Presenter 37**

**Thursday 18 June 2026, 11:35–14:05 (Larch Theatre, Nucleus Building, King's Buildings, Thomas Bayes Rd, Edinburgh EH9 3FG)**

Transformer configuration for induced current in short-circuited multilayer CORC cable	Diego Armando Garfias Davalos
Modelling Approach for the Conceptual Design of SFCLs in HVDC grids with MMC	Antonio Morandi
Behavioral and Physics-Based Modeling of Josephson Field-Effect Transistors for Circuit Simulators	Shanuka Gamaethige
Study on mechanism of Transient Current Distribution in No-Insulation Superconducting Magnets Under Rapid Magnetic Field Variations	Jianhua Liu
Non-planar High-temperature Superconducting Coil Geometry-Tension-Torsion Strain Margin Assessment and Critical Current Degradation Threshold Study	Hongbo Sun
Comparison of Halbach arrays made of superconductors and permanent magnets	Killian Kollasch
Numerical Modeling and Protection Design for the SupraFusion Demonstrator	Antoine GUINET
Effects of HTS insert quenches on LTS in 40 T HTS-LTS hybrid magnets	Andrew Varney
Extracting $I_c$ from Anomalous Curves: Numerical Circuit-Model-Guided Measurement for Multifilamentary REBCO Tapes	Junhao Zhang
Magnetically Induced Current-Based Excitation Modulation for Field Weakening Control in Superconducting Electrical Machines	Qian Dong
Guaranteed-Minimum Performance for REBCO Magnet Assemblies Using Calibration and Architecture Mapping	Jaap Kosse
A MEMEP-Constrained Circuit Framework for Magnetoquasistatic Analysis of No-Insulation HTS Magnets	Zhishu Qiu
1D-Simulation of surface AC losses in a two-layer CORT including the flux cutting regime	Steffen Elschner
Numerical modelling of magnetic drug targeting using a bulk superconducting magnet	Mark Ainslie
Modelling the hysteresis loop of an HTS magnet	Fedor Gömöry
Modified Wilson model of quench velocity for Bi-2212 insert coils in hybrid magnets	Steven Ball
Inductive Current Distribution Sensing on HTS CORC Cables: Simulation, Design and Measurement	Jurrie Bruggeman
Calculating the critical state problem of superconductor electromagnetic fields based on optimization theory	Yunkai Tang
Numerical Study of Multi-Pulse Magnetization of a Joint-less HTS Coil	Jiafu Wei
Modelling and validation of HTS Pancake Coils	Andrea Marchegiani
Loss of Flow Accident Modelling for an Additive-Manufactured HTS Current Lead for Power Transport Applications	Giovanni Mangiulli
Voltage Spikes and Multiphysics Behavior in a Metal-Insulation Co-Wound REBCO Dipole magnet under Fast-Ramping Background Fields	Cedric Korte
Hybrid Method for AC-Loss Estimation in DC HTS Coils of Linear Machines	Emma Gottardi
Effect of Non-Uniform Forced Cooling on HTS Cable Performance: A Coupled Simulation of Electromagnetic-Thermal-Fluid-Mechanical Behavior Considering Fluid-Solid Conjugate Heat Transfer	Juzhuang Yan
Analytical Magnetostatic Models of Magnetic-Teeth, Non-Magnetic-Teeth, HTS Shield and Air-Cored Stators for Fully Superconducting Synchronous Machines	Anass Lemansour
Electromagnetic-thermo-mechanical modelling of quench-heater protection in a HTS magnet using the H- $\phi$ formulation	Wenjuan Song
Electromagnetic Assessment of Toroidal Field Coils in an Alternative Magnetic Layout Tokamak Configuration as Basis for REBCO Joint Development	Sohail Afzal
Physics-Based Optimization of Superconducting Magnetic Cloaks for Arbitrary Geometries	Harold S. Ruiz
AC-Loss Trade-Offs in Hybrid CORC-SSTC Architectures: A Validated 3D Study Toward Compact High-Capacity HTS Cables	Hasan N. H. Al-Ssali
Thrust characteristics of Pulsed Field Magnetized High Temperature Superconducting Bulk Linear Synchronous Motor	Jun Tong Hu
Circuit analysis of short-circuit current experiments for HTS and copper tapes – Magnetic coupling effect using Ltspice	Yamaguchi
Time-Dependent Ginzburg-Landau model with thermal coupling: relevance for vortex dynamics in constricted geometries	Niccolò Gallino
The influence of turn rotation caused by the screening currents on actively quench protected double-pancake-wound high-field REBCO coils	Andy Gavrilin
Simultaneous multi-scale homogeneous model for AC loss calculation of large-scale HTS coils	Lei Wang
AC Loss Simulation and Experimental Study in a Superconductor-Metal-Optical Fiber Heterogeneous Stacked Cable	Zhengze Lu
Overcurrent relaxation losses in superconducting tapes due to ramped external fields	Finn Sutcliffe
Development of a Metal-Insulated HTS Magnet for Electrodynamical Suspension Systems	Songlin Li