Poster Session 1 (Monday, 4 April 2022, 1:30PM-3:30PM)

1. Matt Landreman (U. of Maryland) - Achieving energetic particle confinement in stellarators with precise quasisymmetry

2. Adelle Wright (PPPL) - Exploring stellarator beta-limits with nonlinear MHD modelling

3. Ilon Joseph (LLNL) - Exploration of Quantum Computing for Fusion Energy Science Applications

4. Adam Stanier (LANL) - A conservative multi-scale hybrid scheme with full-orbit ions and fluid-electrons

5. Jacob King (Tech-X Corp) - A time-split approach to atomic and multiple species physics within the semi-implicit leapfrog method and development for next-generation hardware

6. Yuzhi Li (Virginia Tech) - Bohm criterion of plasma sheaths away from asymptotic limits

7. Alistair Arnold - Max Planck Institute for Plasma Physics - Parallel expansion of a pellet plasmoid

8. William Barham - University of Texas at Austin - Structure preserving discretization of Maxwell's equations with a staggered-grid mimetic spectral element method

9. Braden Buck - Purdue University - Comparison of numerical and analytic ITG turbulence models in stellarators

10. Joey Duff - UW-Madison - Stellarator Turbulence Optimization Based on Flux-Surface Triangularity

11. Kaixuan Fan - Peking University - Kinetic Landau-Fluid closures of non-Maxwellian distributions

12. Samuel Frank - Massachusetts Institute of Technology - Simulations of Lower Hybrid Current Drive Spectral Gap Closure by Full Wave Effects

13. Urvashi Gupta - University of Wisconsin-Madison - Pressure driven dynamics and global energy transport in finite-beta RFP computations

14. Joseph Jepson - University of Wisconsin - Madison - Simulations of plasma flow evolution of an axisymmetric tokamak using a Chapman-Enskog-like (CEL) kinetic closure approach in NIMROD

15. Ian Abel - IREAP, University of Maryland - Modelling of Equilibria and Confinement for Centrifugal Mirror Machines

16. Cihan Akcay - General Atomics - Locked mode predictor in the presence of a resistive wall, error field and finite island saturation

17. Bamandas Basu - MIT - "Alternator" Involving Reconnected Magnetic Field Structures in the Presence of Electron Temperature and Density Gradients

18. Joshua Burby - Los Alamos National Laboratory - Geometric integration of Hamiltonian systems on exact symplectic manifolds

19. Alejandro Campos - Lawrence Livermore National Laboratory - Finite-element exterior-calculus simulations of extended Hasegawa-Wakatani drift-wave turbulence

20. Robert Dewar - The Australian National University - Quasi-Relaxed Magnetohydrodynamics (QRxMHD) incorporating Ideal Ohm's Law Constraint (IOL)

21. Julien Dominski - PPPL - Core-Edge Coupled Gyrokinetic Simulations of Whole Device Plasma

22. Darin Ernst - Massachusetts Institute of Technology - Reduced Model and Algorithmic Test-bed for Cross-Scale Interactions in Multi-Scale ITG/ETG Turbulence

23. Benjamin Faber - University of Wisconsin-Madison - StellaratorOptimization.jl: optimizing stellarator confinement with Julia

24. Gilberto Faelli - CNR - Novel Hybrid Reactor Concepts Based on Ignitor Technology and Physics

25. Pier Ferraris - Consorzio Ignitor - Non-Thermal "Cool" Fusion Considered for the Ignitor Program

26. John Finn - Tibbar Plasma Technologies, LLC - Meshfree analysis of numerical stability and noise properties in particle methods for plasma kinetic theory

27. Yashika Ghai - Oak Ridge National laboratory - Modelling energetic particle instabilities using FAR3D for ITER simulations

28. Chris Hansen - University of Washington - Development and validation of tools for magnetized plasmas in fusion devices with 3D structural features

29. Eric Held - Utah State University - Continuum drift kinetic electron closures in NIMROD

30. Eric Howell - Tech-X Corporation - Benchmarking RMP Response Models in KSTAR Plasma

31. Valerie Izzo - Fiat Lux - Simulations to investigate the thermal-quench-onset phase of DIII-D natural disruptions*

32. Dmitrii Kiramov - Institute for Fusion Studies, UT Austin - Bifurcation-driven vertical plasma displacement

33. Atul Kumar - Oak Ridge National Laboratory - Modeling of plasma parallel transport in the Material Plasma Exposure eXperiment (MPEX) during ion cyclotron heating

34. Giovanni Lapenta - KU Leuven - ECsim implicit PIC for 6D fusion modelling

35. Brendan Lyons - General Atomics - Nonlinear, Extended-Magnetohydrodynamic Modeling of Disruption Mitigation

36. Noah Mandell - MIT - GX: a GPU-based pseudo-spectral gyrokinetic code

37. Patrick Kim - IREAP - Stellarator Nonlinear Gyrokinetic Simulations Using Near-Axis Magnetic Fields

38. Patrick Kim - IREAP - Prospects for Efficient Calculation of 3D Plasma Response to RMPs Using Equilibrium Principles

39. Tony Qian - Princeton University - Fast profile predictions using dynamic non-linear flux tubes in Trinity-GX