

1st Virginia Fusion Symposium

Poster List

October 16, 2026

1. Core Performance

1. **Jack Berkery – Princeton Plasma Physics Laboratory**
The National Spherical Torus Experiment Upgrade – Advancing the Physics of Fusion Energy
2. **Luke Payne – William & Mary**
Comparing Turbulence in Dimensionless Matches of Hydrogen and Helium Plasmas in LAPD
3. **Kate Krogen – William & Mary**
Advancement of Particle Transport Analysis Methods in the DIII-D Tokamak
4. **Hui Ning Zoe Fong – William & Mary**
Investigating ELM Control Using Resonant Magnetic Perturbations (RMPs) in MAST-U
5. **Claire Johnson – William & Mary**
Resistive wall modeling using GPEC/DCON+ThinCurr and validation using DIII-D data
6. **Amal Reeja Biju – William & Mary**
Developing synthetic diagnostics from SOLPS-ITER to enhance the neutral inferences of HSV in MAST-U
7. **Frederick Speidell – William & Mary**
Plasma Scenario Development for future Lithium Vapor Divertor Tile Experiments in NSTX-U
8. **Shibabrat Naik – Hampton University**
Divertor footprint geometry from magnetic tangles in STAR_Lite stellarator designs
9. **Mykhailo Vorobiov – William & Mary**
Quantum-Optical Imaging of Electric Fields in Plasma
10. **Abdul-majeed Hamidu – Hampton University**
A Three-Axis Hall Probe System for Magnetic Field Mapping of the STAR_Lite Stellarator
11. **Ava Rogers – William & Mary**
The Roles of Plasma Composition on Laser-Driven Ultra-Strong Magnetic Field Generation
12. **Chester Zimmerman – William & Mary**
The Interplay of Thermal and Laser-Driven Effects in Relativistic Transparency
13. **Marcus Galland – William & Mary**
Laser-Plasma Driven Gamma-Ray Emission From Unstructured Targets

2. Materials

14. **Arturo Dominguez – Oak Ridge National Laboratory**
Overview of ORNL collaboration capabilities
15. **Colm Whelan – Old Dominion University**
Predictive Atomic Theory for Confined and Compressed Helium in Material Matrices
16. **Jessica Reyes – University of Virginia**
Thermal Transport and High Temperature Emissivity of Nanoporous Tungsten for Fusion Applications
17. **Nico Fonseca Alva – University of Virginia**
Designing Radiation Tolerant Refractory Alloys

18. Weining Wang – Virginia Commonwealth University

Aerosol-Enabled Non-Equilibrium Manufacturing and Surface Science for Fusion Energy: Capabilities, exploratory directions, and collaboration interests

3. Fuel, Blanket & Fusion Technology

19. Lane Carasik – Virginia Commonwealth University

VCU Fusion - Fusion Energy Enabling Technology Cluster in Virginia

20. Austin Nelsen – University of Virginia

Providing Highly Polarized ^3He and D Fuels for the DIII-D Spin-Polarized Fusion Experiment

21. Eranga Gunasekara Lehuwala Bandarage – University of Virginia

Spin-Polarized Fusion at DIII-D: Polarized ^3He Preparation at University of Virginia

22. Christopher Leffler – Virginia Commonwealth University

2D Large Eddy Simulation of ARC Fusion System FLiBe Blanket Flow

23. Trevor Franklin – Virginia Commonwealth University

Investigation of Different Transients in a FLiBe Liquid Immersion Blanket System using SAM

24. Sierra Tutwiler – Virginia Commonwealth University

Conjugate Heat Transfer Simulations of a Tungsten Divertor Coolant Channel with Tight-Fitting Twisted Tape Inserts using FLiBe

25. Kara Wilke – Virginia Commonwealth University

Mapping the Thermal-Hydraulic Design Space for Liquid-Metal Plasma-Facing Components

26. Pooja Veena – Virginia Commonwealth University

Design and System modeling of Liquid Metal Plasma Facing Component Subsystem for Exploration of Component Level Conditions

27. Wisdom Jagoi – Hampton University

Electrical Characterization of Non-Planar Modular Coils for STAR_Lite University Scale Stellarator

28. Aba Anokye – Hampton University

Manufacturing and Mounting of Modular Coils for the STAR_Lite University Scale Stellarator

4. Advanced Computation, Modeling & AI

29. Jack Gabriel – William & Mary

GUERNICA: A continuum kinetic code for neutral dynamics in fusion plasmas

30. Sean Emmett – William & Mary

Utilizing Physics Informed Neural Operators for Solving Parametric Vlasov-Poisson Problems

31. Ethan Dolin – Virginia Tech

Quantum-inspired Approximation of 2D Plasma Turbulence

32. Tennyson Miles – Virginia Tech

Extrapolation of DMD-based reduced-order plasma instability models

33. Jamison Hines – William & Mary

Development of Topological Data Analysis Techniques for Noisy and Sparse 2D Time-Dependent Datasets

34. Adel El-Shahat – Old Dominion University

AI-Enabled Resilient Power and Energy Management Architectures for Future Fusion Energy Systems

35. Sayop Kim – Old Dominion University

Multi-Physics Modeling for High-Speed Propulsion Applications