

Sherwood Fusion Theory Conference 2026

Program Agenda

Sunday, April 26

3:00 – 6:00 PM	On-Site Registration
5:00 – 7:00 PM	Sherwood Reception

Monday, April 27

8:15 – 8:30 AM	Welcome and Announcements
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Invited Session 1 *Chair: Livia Casali*

8:30 – 9:00 AM	Virginia Quadri (UTK) <i>"3D turbulence modeling in detached divertor regimes: consequences for mean-field descriptions"</i>
9:00 – 9:30 AM	Francisco Saenz (PPPL) <i>"General two-dimensional surface coil functional to achieve stellarator magnetic configurations"</i>
9:30 – 10:00 AM	Peter Manz (University of Greifswald) <i>"The separatrix operational space concept"</i>
10:00 – 10:30 AM	Coffee Break

Invited Session 2 *Chair: Alessandro Zocco*

10:30 – 11:00 AM	Javier Maurino (University of Oxford) <i>"Turbulence-driven current in up-down asymmetric tokamaks"</i>
11:00 – 11:30 AM	Arsene Tema Biwole (MIT) <i>"Asymptotic Mass and Charge Scaling of Turbulent Impurity Transport in Tokamaks"</i>
11:30 – 12:00 PM	Jacob Mencke (EPFL) <i>"Full-f simulations of a tokamak device with fluctuations on all scales"</i>
12:00 – 1:30 PM	Lunch Break

Poster Sessions

1:30 – 3:30 PM	Poster Session 1
3:30 – 4:00 PM	Coffee / Beer Break
4:00 – 6:00 PM	Poster Session 2

Tuesday, April 28

Plenary & Invited Session 3 *Chair: Xianzhu Tang*

8:30 – 9:30 AM	Chris Stanek (LANL) <i>“Advances in Quantum Computing”</i>
9:30 – 10:00 AM	Simon Pinches (ITER Organization) <i>“Integrated Modeling in Support of ITER and Burning Plasma Research”</i>
10:00 – 10:30 AM	Coffee Break

Invited Session 4 *Chair: Eva Kostadinova*

10:30 – 11:00 AM	Rohan Ramasamy (Proxima Fusion) <i>“Performance assessments of a high field, Q>1 stellarator”</i>
11:00 – 11:30 AM	Andrew Irvin (UTK) <i>“Accelerating predictions of off-axis EC H/CD profiles in present and future tokamaks with gaussian process regression”</i>
11:30 – 12:00 PM	Xu Chu (PPPL) <i>“Extended theory of nonlinear saturation of ballooning modes”</i>
12:00 – 1:30 PM	Lunch Break

Invited Session 5 *Chair: Felix Parra*

1:30 – 2:30 PM	Panel Discussion <i>“The role of theory and simulations on the path to fusion power plants”</i> Panelists: Sam Frank (Realta), Orso Meneghini (Proxima), Camacho Mata (TypeOne Energy), Livia Casali (UTK), Yashika Ghai (ORNL), Nate Ferraro (PPPL)
2:30 – 3:00 PM	Industry Engagement: <i>“New Mexico Innovation Hub”</i> David Perez
3:00 – 3:30 PM	Coffee / Beer Break

Poster Session

3:30 – 5:30 PM	Poster Session 3
7:00 – 9:00 PM	Banquet and Student Awards

Wednesday, April 29

Invited Session 6 *Chair: TBD*

8:30 – 9:00 AM	Sara Vaz Mendes (IPP Greifswald) <i>“Alfvén Mode Excitation by ITG Turbulence and Mode Stability in W7-X Plasmas”</i>
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9:00 – 9:30 AM	Julien Dominski (PPPL) <i>“Theory of turbulent tungsten flux and peaking factor in the trace limit and the existence of minimum of peaking factor at intermediate electric charge states”</i>
9:30 – 10:00 AM	Atul Kumar (ORNL) <i>“Understanding RF-Specific Plasma–Material Interaction and Whole-Device Impurity Transport in High-Power Helicon Operation on DIII-D”</i>
10:00 – 10:30 AM	Coffee Break

Invited Session 7 Chair: Yashika Ghai

10:30 – 11:00 AM	Jacob Varela Rodriguez (IFS UT-Austin) <i>“Effect of fish-bones on He Ash removal in reactor relevant”</i>
11:00 – 11:30 AM	Emma Devin (PPPL) <i>“Nonlinear evolution of strongly driven perturbative kinetic instabilities”</i>
11:30 – 12:00 PM	Austin Welsh (UTK) <i>“SICAS, a new integrated divertor-SOL-pedestal-core framework for self-consistent modeling of ion and impurity transport in fusion devices”</i>
12:00 – 1:30 PM	Lunch Break

Invited Session 8 Chair: Chris McDevitt

1:30 – 2:00 PM	Yanzeng Zhang (University of CN) <i>“Shock-Regulated Pellet Assimilation in Magnetized Fusion Plasmas”</i>
2:00 – 2:30 PM	Fatima Ebrahimi (PPPL) <i>“Multi-species extended MHD simulations of ELM-free negative triangularity DIII-D plasmas”</i>
2:30 – 3:00 PM	Feng Zichen (University of Colorado Boulder) <i>“A coherent structure transport model for scrape-off layer turbulence”</i>
3:00 – 3:30 PM	Jesus Jose Dominguez (FiaT Lux) <i>“Extended-MHD modeling of Wide Pedestal and standard Quiescent H-mode DIII-D plasmas using the NIMROD code”</i>
3:30 – 3:45 PM	Closing Remarks