Highlights from Sherwood 2026

Sherwood Fusion Theory Conference
Santa Fe, NM - USA
April 27-29, 2026



Santa Fe conference setting image from the Sherwood 2026 website.

Los Alamos National Laboratory hosted the 2026 Sherwood Fusion Theory Conference as a full three-day meeting in Santa Fe, New Mexico. All technical sessions were scheduled for Hotel Santa Fe, with plenary and invited presentations in the Crystal Ballroom and poster sessions in the Grand Ballroom.

Source: Sherwood 2026 homepage and program pages: https://www.sherwoodtheory.org/sw2026/index.php and https://www.sherwoodtheory.org/sw2026/program.php



Conference participants outside Hotel Santa Fe during Sherwood 2026.

Sherwood 2026 Committees

The 2026 Sherwood meeting was organized by the Program Committee and Local Organizing Committee listed below.

Program Committee Members	Local Organizing Committee Members
Chair - Livia Casali, University of Tennessee Knoxville	Chair - Xianzhu Tang, Los Alamos National Laboratory
Felix Parra Diaz, Princeton University / PPPL	Luis Chacon, Los Alamos National Laboratory
Federico Halpern, General Atomics	Leah Gonzalez, Los Alamos National Laboratory
Yashika Ghai, ORNL	Evdokiya Kostadinova, Auburn University
Oliver Schmitz, University of Wisconsin	Chris McDevitt, University of Florida
Tang Xianzhu, LANL	Saralyn Stewart, Sherwood Administrator
Alessandro Zocco, IPP Greifswald	Golo Wimmer, Los Alamos National Laboratory
	Yanzeng Zhang, USTC
	Local Coordinator - Saralyn Stewart, Sherwood Administrator

Source: Sherwood 2026 committee page: https://www.sherwoodtheory.org/sw2026/program_committee.php

Conference Program

The 2026 program featured one plenary talk, one panel discussion, 20 invited speaker presentations, and three poster sessions. The meeting opened with on-site registration and a reception on Sunday, followed by a full three-day technical program from Monday through Wednesday.

- One plenary talk
- One panel discussion
- 20 invited speaker presentations
- Three poster sessions
- 112 registered participants
- 31 students
- 3 Retirees
- [To fill] submitted abstracts and accepted poster presentations

Source: Sherwood 2026 program page: https://www.sherwoodtheory.org/sw2026/program.php

Plenary Talk

Marco Cerezo of LANL gave the plenary talk, "Quantum Machine Learning: Hype vs Reality," during the Tuesday morning plenary and invited session chaired by Xianzhu Tang.

Insert uploaded plenary-room or speaker photo here

Photo caption: Sherwood 2026 presentation session.

Source: Sherwood 2026 program page, Tuesday April 28 plenary session: https://www.sherwoodtheory.org/sw2026/program.php

Invited Sessions and Technical Themes

The invited program covered a broad range of fusion-theory topics, including detached-divertor turbulence modeling, stellarator magnetic configurations, separatrix operational space, turbulence-driven current, impurity transport, full-f tokamak simulations, ITER integrated modeling, stellarator performance, EC heating/current-drive profile prediction, nonlinear ballooning-mode saturation, Alfvén modes in W7-X, turbulent tungsten transport, RF-specific plasma-material interaction, energetic-particle effects, shock-regulated pellet assimilation, negative-triangularity ELM-free plasmas, scrape-off-layer turbulence, and extended-MHD modeling of H-mode regimes.

A special highlight of the Tuesday program was the panel discussion, "The role of theory and simulations on the path to fusion power plants," with panelists from Realta Fusion, Proxima Fusion, Type One Energy, UTK, ORNL, and PPPL.



Panel discussion on the role of theory and simulations on the path to fusion power plants.

Source: Sherwood 2026 program page: https://www.sherwoodtheory.org/sw2026/program.php

Vigorous Discussion at the Three Poster Sessions

Sherwood 2026 included two Monday poster sessions and a third poster session on Tuesday afternoon. The poster sessions provided extended time for technical exchange across theory, computation, integrated modeling, edge/SOL/divertor physics, stellarators, tokamaks, and emerging data-driven methods.

Insert uploaded poster-session photos here

Photo caption: Sherwood 2026 poster and discussion sessions.

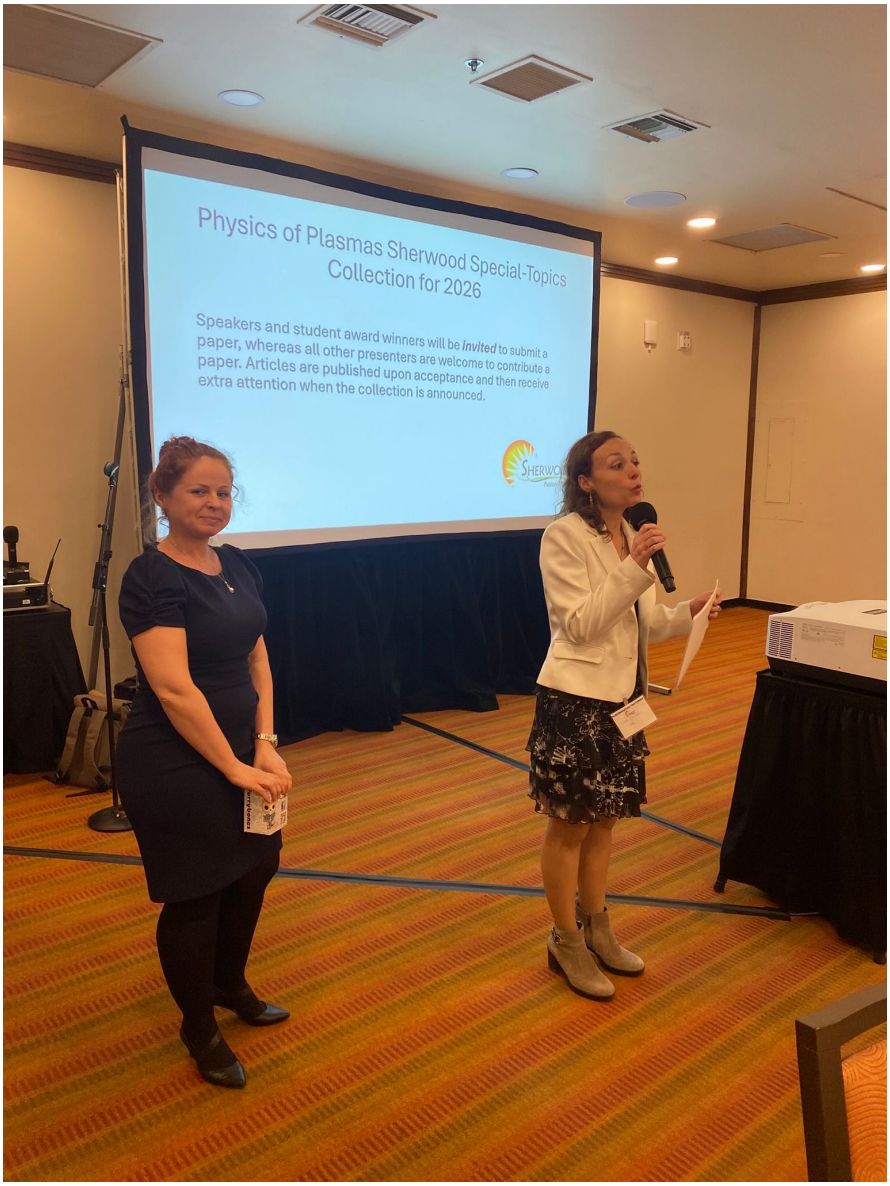
Source: Sherwood 2026 program page, poster sessions: https://www.sherwoodtheory.org/sw2026/program.php

Student Poster Awards

Six student poster awards, each in the amount of $700, were planned for presentation during the banquet. To qualify, a student must present in person, be currently enrolled at an academic institution, be first author on the poster, and not have received this award in two previous Sherwood Conferences.



Student poster award winners recognized at Sherwood 2026.



Sherwood 2026 presentation and awards session.

- [To fill] Awardee 1 - affiliation - poster title
- [To fill] Awardee 2 - affiliation - poster title
- [To fill] Awardee 3 - affiliation - poster title
- [To fill] Awardee 4 - affiliation - poster title
- [To fill] Awardee 5 - affiliation - poster title
- [To fill] Awardee 6 - affiliation - poster title

Insert student-awards or banquet photo here

Photo caption: Student poster award winners recognized at Sherwood 2026.

Source: Sherwood 2026 student poster awards page: https://www.sherwoodtheory.org/sw2026/poster_awards.php

Sherwood Banquet

The Sherwood banquet and student awards were scheduled for Tuesday evening, April 28. The banquet provided a chance for the community to recognize student contributions and continue discussions from the day's plenary, panel, invited sessions, and poster session.

Insert uploaded banquet or group photo here

Photo caption: Sherwood 2026 banquet and student awards.

Source: Sherwood 2026 program page, Tuesday April 28 evening schedule: https://www.sherwoodtheory.org/sw2026/program.php

Sponsors and Partners

Sherwood 2026 was sponsored by Realta Fusion, Type One Energy, and Proxima Fusion. Their support helped advance the conference mission of fostering collaboration and innovation in fusion theory and modeling research.

Source: Sherwood 2026 homepage sponsorship section: https://www.sherwoodtheory.org/sw2026/index.php

Closing / Photo Gallery

Sherwood 2026 brought the fusion-theory community to Santa Fe for three days of invited talks, poster sessions, student recognition, and discussion of the role of theory and simulation in the path toward fusion power plants.

Insert final photo collage or conference group photo here

Additional conference photos can be added here once the public photo-gallery link is available.



Sherwood 2026 participants gathered at Hotel Santa Fe.