June 2025 DPF Newsletter

Dear DPF members,

Please find below the monthly DPF newsletter for June 2025. This newsletter will be archived on the <u>DPF website</u>. If you would like an announcement included in the July 2025 newsletter, please contact the DPF Secretary/Treasurer. Please keep requests to 300 words and submit them by the **10th of the month** for consideration.

DPF is the primary community organization for particle physicists in the United States. You can directly support our activities by making a donation at this link (log in with your APS credentials).

Best wishes.

Ken Bloom, DPF Secretary/Treasurer, kenbloom@unl.edu

Past and upcoming events of interest to the HEP community

Call for nominations for the DPF Executive Committee

Save the Date: DPF26

Nominations for DPF Awards and Prizes

Announcement of the "Annual Reviews of Nuclear and Particle Science" Video Contest

32nd International Symposium on Lepton Photon Interactions at High Energies

53rd SLAC Summer Institute: Pathways to New Physics (Zoom only)

SUSY 2025 Conference

Pre-SUSY Summer School

VERTEX 2025

COSMO-25: 28th International Conference on Particle Physics and Cosmology

4th International Symposium on the History of Particle Physics

Past and upcoming events of interest to the HEP community

On June 11, the National Academies released the report "Elementary Particle Physics: The Higgs and Beyond"

From NAS: "Elementary particle physics is the modern expression of the human quest to understand the basic building blocks of nature and the rules that govern the physical world. This quest has led not only to critical scientific breakthroughs, but also to the development of essential technologies enabling new medical treatments, manufacturing techniques, and more.

At the request of the Department of Energy and the National Science Foundation, the National Academies conducted a study to explore long-term goals and future ambitions for particle physics. The report, released on June 11, presents a bold 40-year vision for the field and highlights the actions necessary to make this vision reality."

The report is available <u>here</u> and the slides shown at the release event are available <u>here</u>.

DPF sponsored a follow up question and answer event at Fermilab and online on **June 12.** Report co-chairs, Maria Spiropulu and Michael Turner, were present in person (along with committee members Bonnie Fleming and Young-Kee Kim) and the rest of the panel joined virtually.

European Strategy for Particle Physics Update (ESPPU) Preview

On June 13, DPF hosted a preview of Hitoshi Murayama's presentation that will be given at the ESPPU Open Symposium in Venice the week of June 23, 2025. https://indico.global/event/14616/ has slides from Anadi Canepa for context on the ESPPU team and a preview of Hitoshi Murayama's presentation.

Upcoming events:

July 31-August 1, 2025 DPF is planning a 2-day virtual forum similar to a hepap HEPAP meeting. Save the date – we will have more details and an agenda in the next week or so.

Heidi Schellman DPF Chair

Call for nominations for the DPF Executive Committee

The APS Division of Particles and Fields Nominating Committee requests your assistance in

identifying candidates to stand for office in this fall's DPF elections. This year, we will be electing people to these offices:

- Councilor (1 position, 2026-29)
- Vice Chair (1 position, 2026, then Chair Elect in 2027, Chair in 2028, and Past Chair in 2029)
- Executive Committee Member-at-Large (2 positions, 2026-28)
- Early Career Member-at-Large (1 position, must be a postdoctoral researcher, 2026-2027)
- Graduate Student Member (1 position, 2026, can serve two consecutive terms)

We invite you to nominate outstanding colleagues to be on this year's ballot. Nominations should be submitted here by July 31, 2025. Self-nominations are welcome. The Nominating Committee works to ensure diversity, equity, and inclusion in all elections, so we ask you to suggest nominees who will represent the diversity of our division membership in all its forms.

APS Membership recognizes and celebrates the accomplishments of the global physics community. Guided by our core values, APS Honors encourages nominations that reflect the full range of talent, distinction, and experience in our field, and supports broad canvassing for professional achievement across diverse backgrounds, perspectives, and expertise.

All elected candidates will begin their terms on January 1, 2026. More details about current officers and related governance information can be found on the DPF Website. Governance of DPF is an important act of service to our community, and we thank you in advance for helping identify excellent candidates.

Tao Han (on behalf of the DPF Nominating Committee, than@pitt.edu)

Save the Date: DPF26

The 2026 edition of the APS Division of Particles and Fields (DPF) meeting will be held at Fermilab on July 20-24. More information to come!

Nominations for DPF Awards and Prizes

While this year's deadline for many awards has passed, nominations for the <u>Mitsuyoshi Tanaka Dissertation Award in Experimental Particle Physics</u> and <u>J. J. and Noriko Sakurai Dissertation Award in Theoretical Particle Physics</u> are due on **September 1**, **2025**.

View all Honors

APS Honors recognizes and celebrates the accomplishments of the global physics community. Guided by our core values, APS Honors encourages nominations that reflect the full range of talent, distinction, and experience in our field, and supports broad canvassing for professional achievement across diverse backgrounds, perspectives, and expertise.

Announcement of the "Annual Reviews of Nuclear and Particle Science" Video Contest

We are writing as the editors of the journal "Annual Review of Nuclear and Particle Science". As the title indicates, we publish each year a volume of 25-page invited reviews on important topics in this area.

There is much discussion these days about how both journals and static review articles are becoming out of date in the current era of internet media. So far, we still convince experts to write for us and these articles obtain many citations, but we ought to be looking ahead to new forms of media presentation. For this we senior people need your help. We will appreciate it if you tell us your suggestions, but it is better if you show us.

With this in mind, we have launched an ARNPS Video Contest. Please make a 5-minute video explaining to your peers some point of physics within the realm of Nuclear and Particle Science. The top three videos will be featured on our journal web page -- and there will be cash prizes! For the rules and contest schedule, please see

https://www.annualreviews.org/page/ARNPS_VideoContest

We emphasize that (1) this contest is specifically for early-career scientists, and (2) these video are not intended for public outreach ("Physics SLAM"s) but rather for peer-to-peer scientific communication.

Good luck! We are eager to see your presentations. If this initiative is successful, we hope to make it an annual event.

Best wishes.

Michael Peskin (mpeskin@slac.stanford.edu) Wick Haxton (haxton@berkeley.edu)

32nd International Symposium on Lepton Photon Interactions at High Energies

To be held Aug 25 – 29, 2025 at the Frank Lloyd Wright designed Monona Terrace Convention Center in the heart of Madison, Wisconsin, USA.

The <u>LP-2025 symposium</u> will feature a broad range of topics of interest to the particle physics, cosmology and particle astro-physics communities. Presentations will include latest experimental results from current experiments, R&D towards future facilities and theoretical developments. There will be plenary talks providing summaries of the state of the field, typically in the morning, detailed reports in the parallel talks and topical results in poster sessions.

53rd SLAC Summer Institute: Pathways to New Physics (Zoom only)

Dear Colleagues:

The 53nd SLAC Summer Institute will take place 28 July-8 Aug 2025; the theme is "Pathways to New Physics", and it will be Zoom only!

The Standard Model is very successful at explaining much of what we see, but many puzzles remain, and their solutions call for the existence of new physics. As the resolution to these mysteries are presently unknown, it behooves us to explore multiple trails, being guided by the new information we gain from a better understanding of the nature of Dark Matter, the properties of the Higgs boson and neutrinos, as well as the many issues related to flavor.

The Institute lectures are primarily aimed at senior graduate students and postdocs while senior researchers are also welcome. Presentation of topical results, participant projects, Q&A and poster sessions, and social events supplement the morning lectures to create an invigorating environment for all participants.

The full program and further details can be found on the SSI website:

https://indico.slac.stanford.edu/e/ssi2025

For answers to questions, please contact us at ssi@slac.stanford.edu.

We hope to see you ONLINE this summer for SSI 2025!

The SSI 2025 Program Directors,

Mark Convery, Greg Madejski, Richard Partridge, Su Dong, Charlie Young, and Tom Rizzo (chair)

SUSY 2025 Conference

Dear Colleague,

We are very pleased to announce that the SUSY 2025 Conference--the 32nd International Conference on Supersymmetry and Unification of Fundamental Interactions--will be hosted at the University of California, Santa Cruz in Santa Cruz, California USA from Monday, August 18, 2025 until noon on Saturday, August 23, 2025. The conference webpage is located at

https://indico.cern.ch/event/1446820/

The aim of the SUSY conference is to review and discuss recent research related to supersymmetric theories and other approaches to physics beyond the Standard Model in all aspects, including formal theory, phenomenology, experiment, astroparticle physics and cosmology.

Registration is a two-step process that involves registration via the Indicao system followed by the payment of the registration fee and an option to choose shared on-campus housing

(https://indico.cern.ch/event/1446820/page/37057-registration-forms). An early bird registration fee of USD 400 for staff and faculty and USD 250 for students is available until June 26, 2025. After this date an additional USD 50 will be charged.

In addition to the plenary talks, there will be three afternoons of parallel sessions. If you are interested in presenting a parallel session talk, please submit an abstract in the Call for Abstracts section of the webpage.

Parallel session talks will be allotted 20 minutes (including questions). The parallel session conveners are responsible for approving the abstracts submitted to their sessions. Please consider submitting your proposed abstract early to ensure the availability of a timeslot for your talk.

If you have any questions or concerns, please send them to susy2025@ucsc.edu. We look forward to welcoming you to Santa Cruz in August.

Best wishes,

Wolfgang Altmannshofer and Howard Haber co-chairs of the SUSY 2025 Conference

Pre-SUSY Summer School

Dear Colleague,

We are very pleased to announce that the Santa Cruz Institute for Particle Physics (SCIPP) will be hosting the **Pre-SUSY Summer School** over five days from **Monday**, **August 11**, **2025 until Friday**, **August 15**, **2025**.

Following a long-standing tradition, the Pre-SUSY School is a week of pedagogical lectures aimed at graduate students and early career postdocs that takes place one week before the 2025 Conference on Supersymmetry and Unification of Fundamental Interactions (SUSY-2025). The webpage for the Pre-SUSY School is located here:

https://indico.cern.ch/event/1524531/

We have assembled a group of superb lecturers who will present advanced topics in particle physics (both non-supersymmetric and supersymmetric), particle astrophysics, and cosmology (see

https://indico.cern.ch/event/1524531/page/38120-lecturers).

There is no registration fee to attend the Pre-SUSY school. However, we ask all interested participants to register for the Pre-SUSY School following the instructions given at https://indico.cern.ch/event/1524531/page/38121-registration-forms. This link also provides an option to pay for shared on-campus housing (which includes meals), which will be the most convenient option for most participants.

Participants of the Pre-SUSY School who wish to stay the following week in Santa Cruz to attend the 32nd International Conference on Supersymmetry and Unification of Fundamental Interactions (SUSY 2025) will be offered a highly discounted rate of USD 100 to attend the main SUSY 2025 conference. This registration fee (along with the cost to extend the on-campus housing for a second week if the participant has opted to reside on campus) would be paid using the same link for arranging on-campus housing during the Pre-SUSY School.

Further details on the SUSY 2025 Conference can be found on the main conference webpage (https://indico.cern.ch/event/1446820/).

If you have any questions or concerns, please send them to susy2025@ucsc.edu. We look forward to welcoming you to Santa Cruz in August.

Best wishes,

Wolfgang Altmannshofer and Howard Haber co-chairs of the Pre-SUSY School 2025



VERTEX 2025

August 25 – 29, 2025 Knoxville, TN Abstract Submission Deadline: June 30, 2025

Dear colleagues,

The 33rd International Workshop on Vertex Detectors "Vertex 2025" will be held from Monday August 25 until noon Friday, August 29, 2025, in Knoxville, Tennessee, organized by the Physics Division of Oak Ridge National Laboratory and the Physics Department of the University of Tennessee (https://indico.phy.ornl.gov/event/677/).

This workshop is a forum for physicists and engineers in high energy and nuclear physics and related fields to discuss recent advances in vertex detectors. It offers a platform to share experiences and explore current and future technology developments for vertex detectors, including radiation hardness, simulation, tracking, electronics, and applications in quantum information sciences and other fields. The conference program is fully plenary and will consist of invited talks by experts in the field and individual contributions. A poster session will be organized Monday evening in the Sun Sphere.

Participation in the workshop is open to all. Oral presentations are predominantly by invitation, while the submission of poster abstracts is open to all. For both oral presentations and posters, abstracts should be submitted on the <u>conference webpage</u>. The deadline for the abstract submission is June 30th.

We are looking forward to seeing many of you!

Best regards,

Vertex 2025 organizers
Mathieu Benoit
Marcel Demarteau
Oskar Hartbrich
Stefan Spanier



COSMO-25: 28th International Conference on Particle Physics and Cosmology

October 13-17, 2025 | Carnegie Mellon University, Pittsburgh, PA

The 28th International Conference on Particle Physics and Cosmology (COSMO-25) brings together experts at the intersection of particle physics and cosmology. The conference features invited talks, contributed presentations, and discussions on cutting-edge topics in theoretical and observational cosmology and astroparticle physics.

Important Dates:

- July 1, 2025: Deadline for contributed talks/posters
- August 1, 2025: Early registration deadline
- September 15, 2025: Final registration deadline

Local Organizing Committee: Katelyn Breivik, Matteo Cremonesi, Rupert Croft, Tiziana Di Matteo, Valentina Dutta, Tao Han (Pitt), Tina Kahniashvili, Rachel Mandelbaum, Antonella Palmese, Riccardo Penco, Rachel Rosen

For registration and details: https://events.mcs.cmu.edu/cosmo-25/

We look forward to seeing you in Pittsburgh this Fall!

4th International Symposium on the History of Particle Physics

Following in the mold established by precursors at Fermilab and SLAC, the 4th International Symposium on the History of Particle Physics will bring together leading physicists who have worked in the field with historians, philosophers and other scholars of science who study the discipline. The focus of this symposium will be upon the important discoveries and intellectual currents of the 1980s and 1990s — a period in which Europe and especially CERN became the acknowledged center of gravity in particle physics. Theoretical, experimental and accelerator physics developments will be examined, as well as the marriage of particle physics with cosmology and astrophysics. This symposium will occur at CERN on 10-13 November 2025.