



ICLR 2022 Announce Seven Outstanding Paper Award Winners, Three Honorable Mentions

Conference features a global lineup of Invited Talks from experts in the field of AI and deep learning

La Jolla, CA., April 20, 2022 - The International Conference on Learning Representations (ICLR) 2022, the premier gathering of professionals dedicated to the advancement of the branch of artificial intelligence called representation learning—generally referred to as deep learning—has announced its tenth conference agenda with a diverse group of invited speakers, seven award-winning papers, three honorable mentions, nineteen workshops and a new Blog Track.

ICLR 2022 is a live virtual event that runs around the clock throughout the five-day conference being held 25-29 April. The Opening Remarks begin at 00:00 PDT on 25 April.

The program chairs reviewed 3,391 submissions and accepted 1,095 papers following a four-month review process. This year's committee is looking forward to showcasing the award-winning papers during the Oral Sessions beginning on 25 April at 17:00 PDT, 26 April at 01:00 PDT, 27 April at 09:00 PDT, and 28 April at 01:00 PDT. The seven Outstanding Paper Awards go to:

- [Bootstrapped Meta-Learning](#) by *Sebastian Flennerhag, Yannick Schroecker, Tom Zahavy, Hado van Hasselt, David Silver, Satinder Singh*
- [Hyperparameter Tuning with Renyi Differential Privacy](#) by *Nicolas Papernot, Thomas Steinke*
- [Comparing Distributions by Measuring Differences that Affect Decision Making](#) by *Shengjia Zhao, Abhishek Sinha, Yutong He, Aidan Perreault, Jiaming Song, Stefano Ermon*
- [Neural Collapse Under MSE Loss: Proximity to and Dynamics on the Central Path](#) by *X.Y. Han, Vardan Papayan, David L. Donoho*
- [Learning Strides in Convolutional Neural Networks](#) by *Rachid Riad, Olivier Teboul, David Grangier, Neil Zeghidour*
- [Expressiveness and Approximation Properties of Graph Neural Networks](#) by *Floris Geerts, Juan L Reutter*
- [Analytic-DPM: an Analytic Estimate of the Optimal Reverse Variance in Diffusion Probabilistic Models](#) by *Fan Bao, Chongxuan Li, Jun Zhu, Bo Zhang*

Three Honorable Mentions go to:

- [Understanding over-squashing and bottlenecks on graphs via curvature](#) by *Jake Topping, Francesco Di Giovanni, Benjamin Paul Chamberlain, Xiaowen Dong, Michael M. Bronstein*
- [PiCO: Contrastive Label Disambiguation for Partial Label Learning](#) by *Haobo Wang, Ruixuan Xiao, Yixuan Li, Lei Feng, Gang Niu, Gang Chen, Junbo Zhao*



- [Efficiently Modeling Long Sequences with Structured State Spaces](#) by Albert Gu, Karan Goel, Christopher Re

The organizing body is proud to announce an exciting lineup of keynote speakers from across the globe to share their expertise and unique perspectives at the conference. This year's [Invited Talks](#) are:

- John H. Amuasi (Kwame Nkrumah University of Science and Technology)
- Jenny L. Davis (The Australian National University) - **'Affordances' for Machine Learning**
- Been Kim (Google Brain) - **Beyond interpretability: developing a language to shape our relationship with AI**
- Pushmeet Kohli (DeepMind) - **Leveraging AI for Science**
- Kunle Olukotun (Stanford University) - **Accelerating AI Systems: Let the Data Flow!**
- Doina Precup (McGill University & Mila; DeepMind Montreal)
- Cordelia Schmid (Inria; Google) - **Do you see what I see? Large-scale learning from multimodal videos**
- H. Sebastian Seung (Princeton University; Samsung Research) - **Petascale connectomics and beyond**

New to this year's program is the ICLR 2022 Blog Track, a novel publication format offering researchers a broader audience from within the scientific community and enhanced credibility through the conference's endorsement. To learn more about the Blog Track, please visit <https://iclr.cc/Conferences/2022/CallForBlogPosts>.

"The progression of AI and deep learning research holds enormous promise for global impact. The ICLR 2022 virtual conference showcases the community's latest research, and fosters thoughtful and inclusive discourse for advancing AI technology and enabling new applications," said Katja Hofmann, ICLR 2022 general chair. "I am particularly excited about new formats and initiatives, such as the ICLR 2022 blog track and the Broadening Participation initiative - both demonstrate ICLR's spirit of experimentation with the goal of high quality, inclusive scientific discourse. I encourage everyone interested in these topics to take advantage of the extensive content and unique opportunities for engagement provided by ICLR 2022."

Participants at ICLR span a wide range of backgrounds, from academic and industrial researchers, to entrepreneurs and engineers, to graduate students and postdocs. ICLR continues to pursue inclusivity and efforts to reach a broader audience, employing activities such as mentoring programs and hosting social meetups on a global scale. In particular, this year, as a concrete effort to broaden ICLR's call for participation, the DEI co-chairs, Rosanne Liu and Krystal Maughan launched a special program, [CoSubmitting Summer \(CSS\)](#), to specifically assist underrepresented, underprivileged, independent, and particularly first-time ICLR



submitters by guiding them to join the ICLR community, find project ideas, collaborators, mentorship and provide computational support throughout the submission process, and establish valuable connections and first-hand training during their early career.

Explore global, cutting-edge research on all aspects of deep learning used in the fields of artificial intelligence, statistics and data science, as well as important application areas such as machine vision, computational biology, speech recognition, text understanding, gaming, and robotics by [registering](#).

For more information read [ICLR Blog](#) and follow [ICLR on Twitter](#).

About ICLR

The International Conference on Learning Representations (ICLR) is the premier gathering of professionals dedicated to the advancement of the branch of artificial intelligence called representation learning but generally referred to as deep learning. For more information about ICLR and for the full schedule visit: <https://iclr.cc/>.

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