Algorithmic Learning Theory 2024: Preface

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These proceedings contain the 44 papers accepted for presentation at the 35th International Conference on Algorithmic Learning Theory (ALT 2024), held February 25—28, 2024, in La Jolla, California, USA. These papers were selected by the program committee out of 124 submissions.

All accepted papers were presented as talks and posters at the conference. Four accepted papers were recognized as outstanding papers: "The Attractor of the Replicator Dynamic in Zero-Sum Games" by Oliver Biggar and Iman Shames; "Dueling Optimization with a Monotone Adversary" by Avrim Blum, Meghal Gupta, Gene Li, Naren Sarayu Manoj, Aadirupa Saha, and Yuanyuan Yang; "Multiclass Learnability Does Not Imply Sample Compression" by Chirag Pabbaraju; "Private PAC Learning May be Harder than Online Learning" by Mark Bun, Aloni Cohen, and Rathin Desai.

The conference featured invited talks by Fan Chung Graham, Stefanie Jegelka, Gergely Neu, and Gregory Valiant.

ALT was preceded by the ITALT Symposium, which was jointly organized with the Information Theory and Applications (ITA) Workshop and chaired by Vidya Muthukumar. ITALT featured invited talks by Ankur Moitra and Yuanzhi Li, in addition to a professional development panel, and social/mentoring activities to bridge the two communities of learning theory and information theory.

Following the practice of two previous editions of the conference, ALT 2024 implemented a two-tiered dual-role reviewing system. Details of the system are described in the prefaces of the ALT 2022 and 2023 proceedings (Dasgupta and Haghtalab, 2022; Agrawal and Orabona, 2023).

We would like to thank Misha Belkin and Yian Ma (local organizers), Simeng Zeng (UC San Diego event specialist), and Tom Cesari (sponsorship chair) for their dedicated work that helped make the conference a success. We also thank Vidya Muthukumar, Alon Orlitsky, and the organizers of Learning Theory Alliance and Women in Machine Learning Theory for putting together the ITALT Symposium. We thank the ALT Steering Committee for their guidance and support. We are most grateful for the hard work of the entire program committee (listed below). Finally, we would very much like to thank our generous sponsors: D. E. Shaw Group, Google DeepMind, Google, KAUST, Two Sigma, and uOttawa.

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