Algorithmic Learning Theory 2025: Preface

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These proceedings contain the 51 papers accepted for presentation at the 36th International Conference on Algorithmic Learning Theory (ALT 2025), held February 24-27, 2025, at Politecnico di Milano in Milan, Italy. These papers were selected by the program committee out of 144 submissions.

All accepted papers were presented as talks and posters at the conference. Four accepted papers were recognized as outstanding papers:

- "A Unified Theory of Supervised Online Learnability," by Vinod Raman, Unique Subedi, and Ambuj Tewari;

- "The Dimension Strikes Back with Gradients: Generalization of Gradient Methods in Stochastic Convex Optimization," by Matan Schliserman, Uri Sherman, and Tomer Koren;

- "Computationally efficient reductions between some statistical models," by Mengqi Lou, Guy Bresler, and Ashwin Pananjady; and

- "When and why randomised exploration works (in linear bandits)," by Marc Abeille, David Janz, and Ciara Pike-Burke.

The conference featured invited talks by Boaz Barak, Massimiliano Pontil, Claire Vernade, and Nikita Zhivotovskiy, and an interview with Nicolò Cesa-Bianchi. A lively social program accompanied the conference, including an aperitivo, a museum tour, and a social dinner. There was also a mentoring session for Women in Learning Theory (with the support of Women in Machine Learning), organized by Tatjana Chavdarova and Claire Vernade.

Similar to previous years (Dasgupta and Haghtalab, 2022; Agrawal and Orabona, 2023; Vernade and Hsu, 2024), we employed a two-tiered program committee. Program committee members reviewed papers, while senior program committee members reviewed and meta-reviewed papers. We recruited a large program committee to ensure a lightweight commitment from individual members, with no program committee member assigned to more than three papers.

We are grateful to Giulia Clerici, Matteo Papini (local chairs) and their team of volunteers, as well as Tom Cesari (sponsorship chair) for helping make the event a huge success. We are also thankful to Lev Reyzin and the rest of the Association for Algorithmic Learning Theory steering committee for their support, organization, and guidance. We are indebted to our incredible program committee, listed below. And finally, the conference would not be possible without the generous sponsorship of Criteo, D. E. Shaw & Co., Google DeepMind (Platinum sponsors), Google (Gold sponsor), Artificial Intelligence Journal, and Two Sigma (Silver Sponsors), as well as the hospitality of our hosts Politecnico di Milano and ELLIS Unit Milan.

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