



WI-IAT 2021 Special Track on Computational Complexity

Introduction

This special track seeks original research papers in all areas of computational complexity theory, studying the absolute and relative power of computational models under resource constraints. We welcome contributions from all topics with connections to or motivated by questions in complexity theory, broadly construed. Papers that expand the reach of complexity theory, or raise important problems that can benefit from the perspective and techniques of computational complexity, are encouraged. Possible topics include but are not limited to:

- Complexity classes
- Reducibility and completeness
- Circuit complexity
- Communication complexity
- Algebraic complexity
- Proof complexity
- Complexity in other concrete computational models
- Interactive and probabilistic proof systems
- Logic and descriptive complexity
- Pseudorandomness and derandomization
- Average case complexity
- Quantum computation
- Parametrized complexity
- Fine-grained complexity
- Complexity-theoretic aspects of:
 - coding theory
 - cryptography
 - optimization (including inapproximability, continuous optimization)
 - property testing
 - streaming and sublinear computation
 - distributed computation
 - game theory
 - machine learning

Workshop Chairs

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