Prof. Johannes Köbler

Faculty of Mathematics and Natural Sciences
Department of Computer Science
Complexity and Cryptography



Expertise

The focus of our research interests is on algorithms for and complexity of theoretic questions for algebraic problems with a special emphasis on graph isomorphism and related algorithmic problems. It is a long standing question wether graph isomorphism can be solved in polynomial time. For many restricted graph classes, efficient algorithms are known (as for graphs with bounded tree width, bounded color class size, for certain intersection graphs (e.g. interval graphs) as well as for all graph classes closed under minors). Further, we investigate related problems as canonization and similarity of graphs as well as theoretical questions originating from the context of cryptography.

Topics / Trends

Big Data & Data Management
IT & Cyber Security

Industries

Education
Information & Communication Technology

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