H-FREE GRAPHS: FROM STRUCTURE TO ALGORITHMS

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One of the active areas of algorithmic graph theory is to investigate how the restrictions imposed on the set of input instances influence the complexity of computational problems. Quite often we can witness an interesting interplay between graph-theoretic and algorithmic results: a good understanding on the structure of instances may help in the design of efficient algorithms.

During the tutorial we will show some tools and techniques that can be used to develop algorithms for graphs that exclude a fixed graph F as an induced subgraph. We will mostly focus on the case that F is a path.