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### **Combinatorial and network optimization under uncertainty**

In these lectures, we will learn about dealing with optimization problems under uncertainty, with a special focus on combinatorial and network optimization problems. Uncertain input data makes it difficult to find the (one and only) optimal solution. Instead, we define an uncertainty set and search for solutions that are feasible for (almost) all realizations within the uncertainty set and guarantee that the solution value is best in the worst case. We discuss the impact of modeling the robust counterpart, show how the computational performance can be boosted and briefly present extensions like two-stage robustness and recoverable robustness.