

Workshop on
**Tractable special cases of hard combinatorial optimization
problems**

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Tractable special cases through linear algebra

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The talk surveys and discusses a number of tractable special cases of the travelling salesman problem and the quadratic assignment problem. As a common theme, the underlying cost matrices can be defined and easily understood through basic linear algebra: they form a cone, or a low-dimensional subspace, or they have bounded max-plus rank. Of course, also the algorithmic analysis uses tools from linear algebra.