# Towards Realistic Optimization Benchmarks: A Questionnaire on the Properties of Real-World Problems

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## Background

- Benchmarks are used for performance comparison
- Benchmark problems have unrealistic properties [1,2]
- Identify real-world problems
- Identify problem properties
- Integrate into improved benchmarks

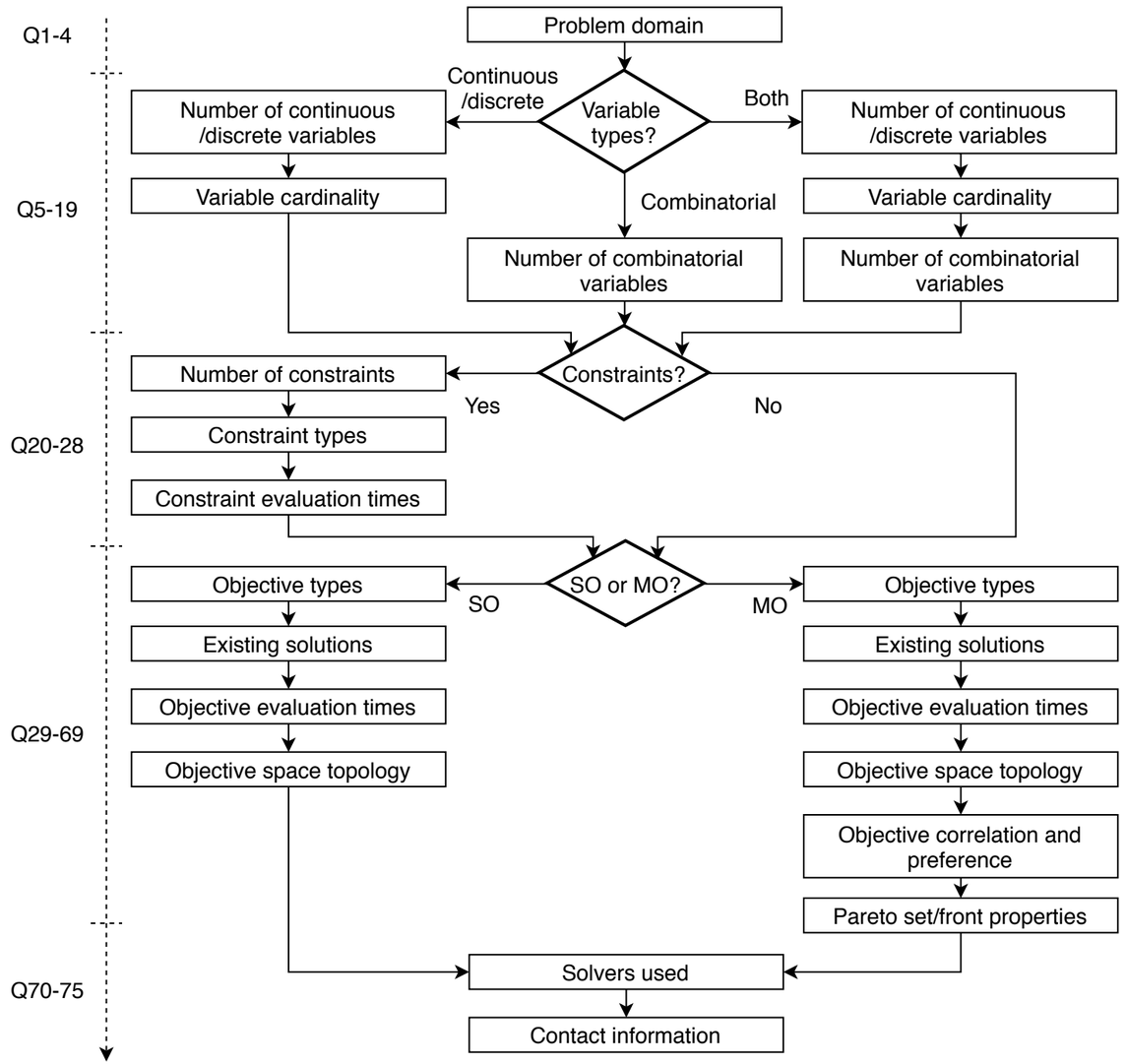
## Fill Out the Questionnaire

https://sites.google.com/view/macoda-rwp/

## Read the paper

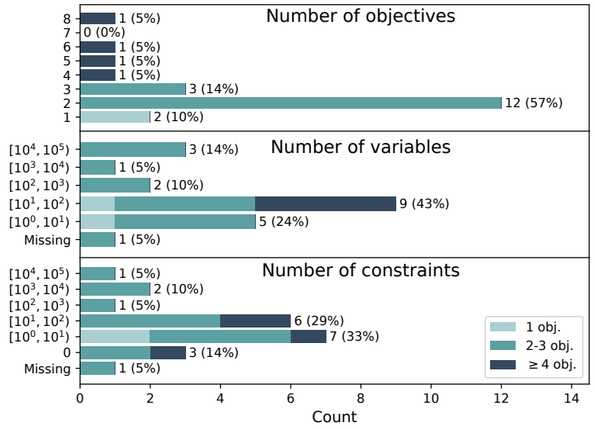
https://arxiv.org/abs/2004.06395/

## Questionnaire Structure




## First Results

- 21 problems
- Constrained and continuous problems are common
- Objective and constraint evaluations are costly: $>1$ minute for 40+% of problems
- Objective space topology is often unknown: a challenge for future benchmark design




The number of objectives, variables, and constraints of the 21 optimization problems

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## References

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