

Optimization of data-dependent objective functions

Yacine Debbabi

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1 A need for robust objective functions

Optimization problems relying on a data-dependent objective function might be prone to producing spurious results. Examples of possible issues include:

- Objective function values can be non robust against minor changes in the underlying dataset,
- The objective function might exhibit large discontinuities that are data dependent.

How can we guarantee robustness of the results?

Interesting links:

- Robust statistics