

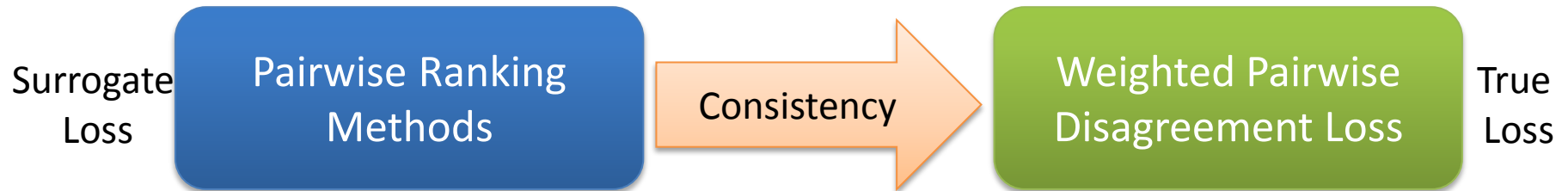
Statistical Consistency of Ranking Methods in A Rank-Differentiable Probability Space

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Motivation

- Statistical Consistency of Ranking Methods



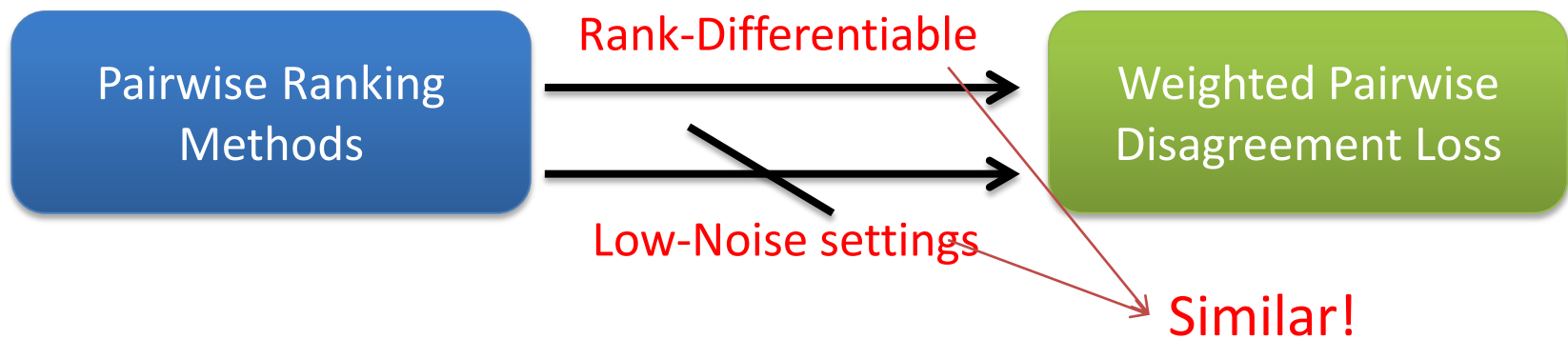
- Theoretically, not consistent, even in low-noise setting [Duchi et. al. ICML 2010].

Contradiction!

- Practically, very effective, still the-state-of-the-art.

Main Results

- With a new assumption on the probability space, many commonly used pairwise ranking methods can be proved consistent with weighted pairwise disagreement loss.



Conclusions

- It is not yet appropriate to draw any conclusion about the inconsistency of pairwise ranking methods.
- Pairwise ranking methods are still good choices for real ranking applications.