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Title: A method for comparing grossly non-parametric distributions with two examples.

Abstract:

There are many instances of heavy sampling (close to 100%) and very ugly distributions, multimodal and heavily skewed. How does one compare two distributions and understand the differences between them? This paper will demonstrate a methodology for comparing the distributions and building a confidence interval around the comparison. By leveraging the high sampling rate natural to the examples (100%) it is possible to build an explicit distribution of the differences and express error with a cum prob plot. This paper will demonstrate this technique with two examples, benchmark characterization for performance analysis and sort test results. Both of these have grossly non parametric distributions and high sampling rates. An extension to this work with reduced sampling will also be presented.

Key words:

Non-parametric, confidence interval, comparative distributions.