## Divergence measures over the set of persistence diagrams

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Given a filtration of simplicial complexes one can apply persistent homology and summarize the result in barcodes or persistence diagrams. Then, in order to extract statistical information from these barcodes, sometimes one computes statistical indicators over the length of its bars. An issue with this approach is that infinite bars must be deleted or cut to finite ones; however, so far there is no systematic way to perform this procedure. With the aim of accomplishing this by minimizing certain functions, and motivated by ideas of information geometry, we have proposed divergence measures over the set of persistence diagrams that generalize the standard Wasserstein and bottleneck distance. In this talk I will introduce you to these divergence measures as well as their properties.

## References

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