# Aquatic Firefly:

A mathematical definition of hypothesis testing

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#### Abstract

These notes aim to define statistical hypothesis testing in a mathematically rigorous and satisfying way following [Sha03], [CB21], and [Sie21].

## References

- [CB21] George Casella and Roger L Berger. Statistical inference. Cengage Learning, 2021.
- [Sha03] Jun Shao. Mathematical statistics. Springer Science & Business Media, 2003.
- [Sie21] Kyle Siegrist. Probability, Mathematical Statistics, Stochastic Processes, 1997 2021.