

PROBABILITY THEORY SEMINAR

**The Elements of the Mathematical Foundations of
Bayesian Inference.****Ary Medino**

Departamento de Matemática - Universidade de Brasília

Date: 25 February 2022

Time: 14:15 pm

This lecture will be held online on Zoom:

<https://us02web.zoom.us/j/86406665548?pwd=c0xxckky...>

Abstract. In this lecture we will present some of the main mathematical elements needed to construct the foundations of Bayesian Statistics. The aim is to explain how these foundations are grounded on: the Probability Theory formalism (which is in turn constructed from the Lebesgue theory of measure and integration); Functional and Convex Analysis; and many other branches of Mathematics.

References

- [1] J.-R. Barra. *Mathematical Basis of Statistics*. Academic Press (1981).
- [2] I. A. Ibragimov, and R. Z. Has' Minskii. *Statistical Estimation: Asymptotic Theory*. Springer (1991).
- [3] Y. Lin'kov. *Lectures on Mathematical Statistics (parts 1 and 2)*. Amer. Math. Society (2005).
- [4] M. J. Schervish. *Theory of Statistics*. Springer (1995).
- [5] J. Shao. *Mathematical Statistics*. Springer (2003).