

# On the flexible concept of ergodicity

Vilton Jeovan Viana Pinheiro <sup>1</sup>

<sup>1</sup> Universidade Federal da Bahia

## **Resumo/Abstract:**

Ergodicity is certainly the most basic and important concept in Ergodic Theory. In this talk we want to show that this concept is very flexible. Indeed, the important point in the concept of ergodicity is to say that if an invariant set is not “insignificant” then its complement must be “insignificant”. I will try to convince the audience that it is possible to do interesting and useful Ergodic Theory without using invariant measures or even with no measures at all. Everything will be related to and motivated by applications in the study of attractors (metrical and topological ones), construction of induced maps, study of maps with discontinuities, study of partial hyperbolic systems, orbits with historic behavior and so on.