

# Entropy, a “functional” viewpoint.

## **Abstract**

Entropy (with respect to a probability measure  $\mu$ ) is associated to a transformation preserving the measure  $\mu$ , topological entropy to a continuous map of a compact space  $X$  into itself. Using a metric defined on a compact foliated space, one can also define the entropy of a foliation. In the conference I'll recall some definitions and examples and present an attempt (work in progress) to obtain a common definition using  $\epsilon$ -separated sets of the intersection of finite dimensional subspaces with unit balls of some spaces of functions. A by-product will be a definition of the entropy of a foliation with respect to a measure.