

ERGODIC THEOREM IN HADAMARD SPACES IN TERMS OF INDUCTIVE MEANS

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Let (Ω, τ) be an equicontinuous dynamical system. In this talk we will present a new ergodic theorem for functions in $L^1(\Omega, M)$, where M is a Hadamard space. The novelty of our result is that we use inductive means to average the elements of the orbit $\{\tau^n(\omega)\}_{n \in \mathbb{N}}$. The advantage of inductive means is that they can be explicitly computed in many important examples. We will also comment a construction of mollifiers in Hadamard spaces that we have used our proof of the ergodic theorem. This construction has the advantage that it only uses the metric structure and the existence of barycenters, and do not require the existence of an underlying vector space.

References

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