DYNAMICS OF OPERATORS ON THE SPACE OF RADON MEASURES

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In this talk, we will consider the dynamics of the adjoint of a weighted composition operator and we will give necessary and sufficient conditions for this adjoint operator to be topologically transitive on the space of Radon measures on a locally compact Hausdorff space. Moreover, we will provide sufficient conditions for this operator to be chaotic and we will give concrete examples. Next, we will consider the real Banach space of signed Radon measures and we will give in this context sufficient conditions for the convergence of Markov chains induced by the adjoint of an integral operator. Also, we will illustrate this result by a concrete example. In addition, we will present some structural results regarding the space of Radon measures. More precisely, we will characterize a class of cones whose complement is spaceable in the space of Radon measures.

The talk will be based on [1].

References

[1] S. Ivković: Dynamics of operators on the space of Radon measures, https://doi.org/10.48550/arXiv.2310.10868, to appear in Analysis, Approximation, Optimization: Computation and Applications- In Honor of Gradimir V. Milovanović on the Occasion of his 75th Anniversary (edited by: Marija Stanić, Miloljub Albijanić, Dragan Djurčić, Miodrag Spalević), book series Springer Optimization and its Applications