

Ergodic Optimization and Related Fields, IME-University of Sao Paulo

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## **Finite and infinite invariant measures for adic transformations**

ABSTRACT. We study invariant Borel measures for nonstationary adic transformations with bounded alphabets. First we reduce to the well-understood primitive case by means of a nonstationary version of the Frobenius decomposition into communicating states. We next find an appropriate notion of distinguished eigenvector sequence and prove a nonstationary Frobenius-Victory theorem. Lastly we classify the measures which are finite positive on the path space of some sub-Bratteli diagram: we give necessary and sufficient criteria for the measures to be finite, infinite but finite on some open set, and infinite on every nonempty open set. These results extend work of Bezuglyi, Kwiatkowski, Medynets and Solomyak. We apply this analysis to a naturally occurring example: nested circle rotations. This is joint with Marina Talet of the University Aix-Provence.