

# Substitutions on countable alphabets

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Abstract. In this work, we study ergodic and dynamical properties of symbolic dynamical systems associated to substitutions on an infinite countable alphabet. Specifically we consider shift dynamical systems associated to irreducible substitutions. Based on dynamical properties of a countable integer matrix related to the substitution, we obtain results on existence and uniqueness of shift invariant measures. This is a joint work with Weberly Domingos, Sébastien Ferenczi and Glauco Valle.