

1176-52-201 **Alexey Garber***, alexey.garber@utrgv.edu. *Substitution tilings with transcendental inflation factor.*

Classical substitution schemes or tilings use finite alphabets or finitely many prototiles. The Perron-Frobenius theory in these settings implies that the (natural) inflation factor in this case must be an algebraic number as it is given as the largest eigenvalue of the substitution matrix. In the talk I plan to describe a framework for construction of substitution families on infinite alphabets with arbitrary (sufficiently large) inflation factors, including transcendental inflation factors. Moreover, these families generate subshift dynamical systems that share many properties with classical dynamical systems originating from substitutions on finite alphabets. The talk is based on a joint work with Dirk Frettlöh (Bielefeld University) and Neil Mañibo (Open University, UK). (Received January 23, 2022)