Reducible substitutions: The geometry of cobounds/height

Bernd Sing[*][1]

[1]The University the West Indies (UWI) – Barbados

Abstract

We look at the notion of "height of a constant length substitution" (compare Dekking '78), respectively "cobounds of a primitive substitution" (compare Ferenczi-Mauduit-Nogueira '96) from a geometrical and number-theoretic viewpoint. This allows us to better understand the calculation of the spectrum of the associated dynamical systems, and also see under which condition we can reduce the height. Appropriate examples of substitions, and one- and two-dimensional substitution tilings will be given.

[*]Speaker