

Cut and Project Tilings. II

Local Rules

Thomas FERNIQUE*

thomas.fernique@lipn.univ-paris13.fr

A tiling admits local rules if it can be described by finitely many forbidden patterns. We here address the following question: which cut and project tilings do admit local rules? We shall explain that the d -dimensional subspace that such a tiling digitizes must be characterized by some algebraic equations, and we provide an explicit way to go from forbidden patterns to these equations and conversely. Again, some (dirty) related code in python already exists—a goal of the afternoon sessions could be to complete it and convert it into a nice implementation in sagemath.

*LIPN (UMR 7030), Université Paris 13, 99 av Jean-Baptiste Clément, 93430 Villetaneuse, FRANCE