RANDOM PISOT SUBSTITUTIONS AND THEIR RAUZY FRACTALS

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ABSTRACT. Random substitutions generalise substitutions and can be used to interpolate between them, allowing properties of one substitution to inform us on properties of another. In this talk, I'll introduce Rauzy fractals for Pisot random substitutions and results concerning natural measures that can be defined on the fractal. By studying these measures, we are able to prove an analogue of a multi-tiling result for Rauzy fractals but in the random setting. Using this, we get a new criterion for an S-adic system to satisfy the Pisot conjecture. This is joint work with Philipp Gohlke, Andrew Mitchell and Tony Samuel.