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Bernd Sing* (sing@math.uni-bielefeld.de), Department of Mathematics, Faculty of Mathematics & Computing, The Open University, Walton Hall, Milton Keynes, Buck'shire MK7 6AA, England. *My view on Pisot substitutions*. Preliminary report.

Substitutions are usually used to generate aperiodic point sets (respectively tilings). Spectral properties of such point sets are then in question, e.g., is the dynamical system generated by them (or the diffraction pattern) pure point. A famous example is the class of (one-dimensional) Pisot substitutions, where it is conjectured that all these Pisot substitutions generate pure point systems. In this talk, we indicate which results for Pisot substitutions are known and which of them generalize to more general (e.g., higher dimensional) substitutions. (Received December 21, 2006)