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Tiling and weak tiling in \mathbb{Z}_p^d

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The notion of weak tiling was recently introduced by Nir Lev and Máté Matolcsi in connection with Fuglede's conjecture. In particular, all spectral sets tile their complements weakly. In this talk we initiate a systematic study of weak tiling in finite Abelian p -groups \mathbb{Z}_p^d . However, the question whether all spectral sets tile in \mathbb{Z}_p^3 remains open. The talk is based on joint work with G. Kiss, D. Matolcsi, G. Somlai.