

Aperiodic tilings and their C^* -algebras

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In this minicourse I will introduce aperiodic tilings and their associated groupoid C^* -algebras. We will see that these groupoid C^* -algebras are strongly Morita equivalent to a crossed product of the continuous functions on the tiling space by R^d and use this to compute the K -theory through cohomology on tiling space. In the final lecture I will discuss aperiodic tile sets, Wang tiles and the einstein (one-stone) problem.