Pure Mathematics Seminar

Tilings with dense tile orientations

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Particularly exotic objects in the theory of aperiodic order are tilings where the tiles appear in infinitely many orientations. The pinwheel tiling of Conway and Radin is the most prominent example. This talk shows how a certain property of the pinwheel tiling (orientations of tiles are dense on the circle) generalizes to all primitive substitution tilings with tiles in infinitely many orientations. Then we present a certain family of such tilings. The proof that they have dense tile orientations relies on the proof that the angle of the diagonal of a parallelogram with edge lengths 1 and 2 and rational interior angles is irrational.

Date: **Friday, February 17, 2017**
Time: **12:00 pm**
Place: **Edinburg:** EMAGC 1.302, **Brownsville:** BLIBR 2.206

The talk will delivered live at the *Brownsville* campus and will be streamed to the Edinburg campus

Coffee will be served.

For further information or for special accommodations, please contact Dr. Sergey Grigorian via email at [sergey.grigorian@utrgv.edu], or Dr. Alexey Garber at [alexey.garber@utrgv.edu], or visit the webpage http://www.utrgv.edu/math/news-events/seminars/puremath/index.htm