1105-05-260 **Maria Ramirez-Solano*** (mrs@math.ku.dk), Department of Mathematical Sciences, Universitetsparken 5, DK-2100 Copenhagen, Denmark. *A Non-standard Hierarchical Tiling.*

The Bowers and Stephenson conformally regular pentagonal tiling of the plane enjoys remarkable combinatorial and geometric properties. Since it does not have finite local complexity in any usual sense, it is beyond the standard tiling theory. On the other hand, the tiling can be completely described by its combinatorial data that, rather automatically, has finite local complexity. With the aim to compute its K-theory, we construct the hull and C*-algebra of this tiling solely from its combinatorial data. As the tiling possesses no natural $\mathbb{R}^2$ action by translation, there is no a priori reason to expect that the K-theory of the C*-algebra of the tiling is the same as the K-theory or cohomology of the hull of the tiling, and it would be very interesting if they were different. (Received September 22, 2014)