1133-42-216   **Angel San Antolin**, Universidad de Alicante, Spain, and **Richard A Zalik***
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36849. *Some smooth compactly supported tight framelets associated to the quincunx matrix.*

We construct two families of tight wavelet frames in $L^2(R^2)$ associated to the quincunx matrix. The first family has five
generators and the second has only three. The generators have compact support, any given degree of regularity, and any
fixed number of vanishing moments. Our construction is made in Fourier space and involves some refinable functions, the
Oblique Extension Principle, and a slight generalization of a theorem of Lai and Stöckler. The refinable functions we use
are constructed from the Daubechies low pass filters and are compactly supported. The main difference between these
two families is that while the refinable functions associated to the five generators in the first family have symmetries, the
refinable function used to construct the three generators in the second family do not. (Received July 28, 2017)