

Fourier quasicrystals

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A crystalline measure is a tempered distribution with discrete support whose Fourier transform also has discrete support. Recently, Pavel Kurasov and Peter Sarnak answered a question of Yves Meyer by constructing crystalline measures on the real line with several desirable properties. The crucial ingredient of their construction are real stable polynomials. In the talk I will explain how to generalize their construction using the theory of real fibered morphisms and obtain suitable crystalline measures in higher dimensions.

This is a joint work in progress with Lior Alon, Pavel Kurasov and Cynthia Vinzant.