Boğaziçi Math Seminar

Crystalline measures, Fourier quasicrystals, their generalizations and some applications

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Abstract:

We discuss the definitions of crystalline measures and Fourier quasicrystals, as well as the relationship between these concepts, and demonstrate some sufficient conditions for a crystalline measure to be a Fourier quasicrystal. We then demonstrate Olevskii and Ulanovsky theorem on the one-to-one correspondence between the zeros of exponential polynomials with real roots and Fourier quasicrystals with unit masses and present its generalization to complex zeros of exponential polynomials, absolute convergent Dirichlet series and entire almost periodic functions with zeros in a strip. The last result provides a simple criterion for the representability of almost periodic entire functions of exponential growth (in particular, exponential polynomials) as a finite product of sines.

Date : Wednesday, March 25, 2026
Time: 13:30
Place: TB 130, Boğaziçi University