

The committee for the 2017 Erdős prize in Mathematics unanimously recommends to award the prize to Nir Lev from Bar-Ilan University. Lev's research lies at the crosspoint between Harmonic Analysis, Number Theory and mathematical problems motivated by Signal Processing.

Lev completely renewed the theory of almost periodic measures which lies at the core of diffraction properties of quasi-crystals. Together with A. Olevskii he resolved a problem that was open for decades, by showing that up to trivial modifications, Dirac combs are the only measures μ such that both the support of μ and that of its Fourier transform $\hat{\mu}$ are uniformly discrete. In a remarkable work of Lev with his student S. Grepstad, the authors provide a systematic study of sets of bounded remainder for the classical d -dimensional Kronecker sequence. This is an extraordinary extension of the one dimensional result (due to Hecke and Ostrowski from the 1920's and Kesten from 1966).

This is only a partial list of Lev's outstanding achievements that have earned him the Erdős prize for 2017.