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**Dorin Ervin Dutkay\***, ddutkay@gmail.com. *Fuglede's conjecture in one dimension.*

Fuglede's conjecture states that a measurable set has an orthonormal Fourier basis if and only if it tiles the real line by translations. It connects the geometry of tiles to the harmonic analysis of spectral sets.

The conjecture is still open in dimension one. We will present some equivalent formulations and reductions to tiles and spectral sets in the integers. (Received January 04, 2014)