

# A Characterization of Three-Interval Wavelet Sets in $\mathbb{R}$

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A *wavelet set* in  $\mathbb{R}$  is a subset of  $\mathbb{R}$  that is translation congruent modulo  $2\pi$  to the set  $[0, 2\pi)$  and dilation congruent modulo 2 to the set  $[-2\pi, -\pi) \cup [\pi, 2\pi)$ . In this talk, a characterization of wavelet sets of three intervals is presented. A short proof that there are uncountably many wavelet sets of four or more intervals is also given.