

1116-42-1064      **Izabella Laba\*** (ilaba@math.ubc.ca), Department of Mathematics, UBC, Vancouver, BC  
V6T1Z2, Canada. *Polynomial configurations in fractal sets.*

We prove that if  $\mu$  is a measure on  $\mathbb{R}^n$  obeying the appropriate ball condition and Fourier decay assumption (in particular, the Hausdorff dimension of its support must be sufficiently close to  $n$ ), then the support of  $\mu$  must contain certain configurations defined by nondegenerate matrix systems with a polynomial term. This extends the earlier work of Chen, Laba and Pramanik to a new polynomial setting. (Joint work with Kevin Henriot and Malabika Pramanik.) (Received September 16, 2015)