

**SPEAKER:**

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**TITLE:**

Projection theorems and applications

**ABSTRACT:**

Given a fractal set  $E$  on the plane and a set  $F$  of directions, can we find one direction  $L$  in  $F$  such that the orthogonal projection of  $E$  along  $L$  is large? We will survey some classical and modern projection theorems and discuss their applications. This talk is based on joint work with Pablo Shmerkin.