



Department of Mathematics  
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# Seminar

## *Salem sets with no arithmetic progression*

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*University of British Columbia*

Abstract : We will discuss Pablo Shmerkin's construction of Salem sets in  $\mathbb{R}/\mathbb{Z}$  of any dimension (including 1) which do not contain any arithmetic progressions of length 3. Moreover, the sets can be taken to be Ahlfors regular if the dimension is less than 1, and the measure witnessing the Fourier decay can be taken to be Frostman in the case of dimension 1.

**Date** : November 29, 2017 (Wednesday)  
**Time** : 2:00p.m. – 3:00p.m.  
**Venue** : Room 222, Lady Shaw Building  
The Chinese University of Hong Kong

*All are Welcome*