

Department of Mathematics **The Chinese University of Hong Kong** 

數學系

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## Seminar

## More recent developments of the polynomial method

## Mr. Ruixiang ZHANG Princeton University

## <u>Abstract</u>

We will discuss more recent applications of the polynomial method. Degree reduction is an example where in the continuous setting we try to do things similar to the discrete setting. We will then sketch some aspects of the recent novel partial result of the restriction conjecture by Guth and try to explain the role played by the polynomial method there. Finally we might talk about the recent remarkable progress of the cap set problem by Croot-Lev-Pach-Ellenberg-Gijswijt if we have extra time left.

*Date*: December 28, 2016 (Wednesday)

*Time*: 2:00pm − 3:30pm

**Venue**: Room 222, Lady Shaw Building,

The Chinese University of Hong Kong

All are Welcome