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## A survey on $\ell^2$ decoupling

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## <u>Abstract</u>

Bourgain, Demeter and Guth recently made a number of important breakthroughs via what they called the decoupling inequality. The inequality has its roots in harmonic analysis (via the restriction and Kakeya conjectures), but has since found surprising applications to analytic number theory (via the Vinogradov main conjecture), PDEs (via e.g. sharp Strichartz inequalities for the Schrodinger equation on tori), additive combinatorics, and so forth. We will survey some of these developments in this talk.

Date :	September 27, 2016 (Tuesday)
Time :	10:30am – 12:00noon
Venue :	Room 219, Lady Shaw Building,
	The Chinese University of Hong Kong

All are Welcome