



**The Hong Kong Polytechnic University
Department of Applied Mathematics
Colloquium**

Sums of Squares

by

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From the obvious fact that 101 is a sum of 2 squares, we seek a geometrical proof to cover all primes of the form $4n + 1$.

On the other hand, Hilbert proved in 1888 that $x^4 + y^4 + x^2 + y^2$ is sum of 3 squares of polynomials, but nobody could understand his proof. Can we do better than Hilbert now?

In this expository talk, we will try to see the notion of sums of squares from many different points of view.

Date : 30 October, 2014 (Thursday)

Time : 2:30 p.m. – 3:30 p.m.

Venue : TU717, The Hong Kong Polytechnic University

*** * * ALL ARE WELCOME * * ***