

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research  
Department of Mathematics*

# COLLOQUIUM

## Primes on Orbits

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### **Abstract**

In the introductory part of the talk, various results concerning primes are revisited in the spirit of a recent general conjecture of Peter Sarnak. Special attention is paid to prime solutions to quadratic equations. In the main part of the talk, a joint result with Sarnak is reported. This result is obtained by the algebraic theory of quadratic forms, the Jacquet-Langlands theory on automorphic representations, the Kim-Sarnak bound towards the generalized Ramanujan conjecture, and Selberg's ideas in harmonic analysis.

**Date:** May 6, 2009 (Wednesday)

**Time:** 4:00 – 5:00pm

**Place:** Room 517, Meng Wah Complex, HKU

*All are welcome*