

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research  
Department of Mathematics*

## **GEOMETRY SEMINAR**

# On the polynomial moment problem

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### **Abstract**

In the talk we will outline a solution of the following “polynomial moment problem” which arose recently in relation with Poincare's Center-Focus problem: for a complex polynomial  $P(z)$  and a curve  $C$  to describe polynomials  $q(z)$  orthogonal to all powers of  $P(z)$  on  $C$ . We also will discuss the relations of this problem with different branches of mathematics such as differential equations, complex analysis, algebraic geometry and group theory.

**Date:** February 11, 2011 (Friday)

**Time:** 4:00 – 5:00pm

**Place:** Room 210, Run Run Shaw Bldg., HKU

*All are welcome*