

THE UNIVERSITY



OF HONG KONG

Department of Mathematics

# COLLOQUIUM

## The number of quartic $D_4$ -fields with monogenic cubic resolvent ordered by conductor

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### Abstract

It is an old problem in number theory to count number fields of a fixed degree and having a fixed Galois group for its Galois closure, ordered by their absolute discriminant, say. In this talk, I shall discuss some background of this problem, and then report a recent work with Stanley Xiao. In our paper, we considered quartic  $D_4$ -fields whose ring of integers has a certain nice algebraic property, and we counted such fields by their conductor.

**Date:** March 5, 2018 (Monday)

**Time:** 4:00 - 5:00pm

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

*All are welcome*