



Department of Mathematics  
The Chinese University of Hong Kong

數學系  
香港中文大學

Phone: (852) 3943 7988 • Fax: (852) 2603 5154 • Email: [dept@math.cuhk.edu.hk](mailto:dept@math.cuhk.edu.hk) (Math. Dept.)  
Room 220, Lady Shaw Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong

# Seminar

## *Using the Heegaard Floer d-invariants to obstruct surgery*

*Professor Margaret Doig  
Creighton University*

### Abstract

Heegaard Floer theory has received attention recently for its applications to seemingly unrelated traditional questions in low-dimensional topology. We will discuss a few ways in which the ‘d-invariants’ or ‘correction terms’ may be used to investigate these questions. Different properties of the d-invariants make them useful in various situations: the rough information of their general magnitude obstructs some dihedral manifolds from being surgery; for other manifolds of finite fundamental group, the finer information of the denominators  $Z$  does the same; for the cobordism classification spaces, the isomorphism of the spin-c structures and d-invariants in the category of torsors and functions provide the needed information.

Date: 16 August 2018 (Thursday)  
Time: 1:30pm – 3:00pm  
Venue: Room 222, Lady Shaw Building,  
The Chinese University of Hong Kong, Shatin

*All are Welcome*