

# SCMS Seminar

## ON THE ESSENTIAL SPECTRUM OF LAPLACIAN ON DIFFERENTIAL FORMS ON COMPLETE NON-COMPACT RIEMANNIAN MANIFOLDS

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**University of California**

### Lecture 1

**Time:** 9:30-11:30 am., Monday, Jun.13, 2016

**Venue:** Room 2201, East Main Guanghua Tower, Handan Campus

**Abstract:** The Weyl criterion characterizing the spectrum of Laplacians. In this lecture, I will talk on the new Weyl criterion I developed with Charalambous. Using this new criterion, we are able to compute the spectrum of the Laplacian on non-compact complete manifolds which do not have poles.

### Lecture 2

**Time:** 9:30-11:30 am., Monday, Jun.20, 2016

**Venue:** Room 2201, East Main Guanghua Tower, Handan Campus

**Abstract:** Continuity of spectrum of the Laplacian on functions. In this lecture, I will introduce the results of Fukaya and Cheeger-Colding on the continuity of the eigenvalues on collapsing family of compact Riemannian manifolds.

### Lecture 3

**Time:** 9:30-11:30 am., Wednesday, Jun.22, 2016

**Venue:** Room 2201, East Main Guanghua Tower, Handan Campus

**Abstract:** Continuity of spectrum of the Laplacian on differential forms. In this lecture, I will use the Cheeger-Colding theory to study the essential spectrum of Laplacians on differential forms.