



Department of Mathematics  
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# Seminar

## *Geodesic period integrals of eigenfunctions on Riemannian surfaces*

*Mr. Yakun XI*  
*Johns Hopkins University*

### Abstract

We use the Gauss-Bonnet theorem and the triangle comparison theorems of Rauch and Toponogov to show that on compact Riemannian surfaces of negative curvature, period integrals of eigenfunctions over geodesics go to zero at the rate of  $O((\log)^{1/2})$  if  $\lambda$  are their frequencies. No such result is possible in the constant curvature case if the curvature is  $\geq 0$ .

**Date :** December 5, 2016 (Monday)  
**Time :** 2:00pm – 3:00pm  
**Venue :** Room 219, Lady Shaw Building,  
The Chinese University of Hong Kong

*All are Welcome*