

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research  
Department of Mathematics*

## **GEOMETRY SEMINAR**

# **Instanton Floer homology for connected sums of Poincaré spheres**

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### **Abstract**

In this talk, we explain the instanton Floer homology and its Mayer–Vietoris principle to compute the integer graded Floer homology of the connected sum of a Poincaré homology sphere with itself. We then apply the Fintushel–Stern spectral sequence to deduce its regular Floer homology and observe the presence of 3–torsion in the Floer groups.

**Date:** November 18, 2009 (Wednesday)

**Time:** 2:00 – 3:00pm

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

*All are welcome*