

# Topology and Geometry Seminar

**Speaker:**

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**Monday, March 3rd**

**2:00 p.m., HH-3017**

## **Filling Invariants of Groups**

### **Abstract:**

When viewed geometrically, the Dehn function  $\delta_G$  of a finitely pre-sented group  $G$  measures minimal-area fillings of loops by discs in the Cayley complex  $\tilde{X}$  of  $G$ . How might  $\delta_G$  change if one allows loops to be filled by surfaces of arbitrary genus? I will discuss this modification in detail and (if time permits) use the Baumslag-Solitar group  $BS(1, 2)$  and its double  $BS(1, 2) \times BS(1, 2)$  to illustrate an interesting result of Robert Young.