

*Department of Mathematics,  
University of California San Diego*

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## Group Actions Seminar

**Anthony Sanchez- Graduate student**

University of Washington

### Gaps of saddle connection directions for some branched covers of tori

**Abstract:**

Holonomy vectors of translation surfaces provide a geometric generalization for higher genus surfaces of (primitive) integer lattice points. The counting and distribution properties of holonomy vectors on translation surfaces have been studied extensively. A natural question to ask is: How random are the holonomy vectors of a translation surface? We motivate the gap distribution of slopes of holonomy vectors as a measure of randomness and compute the gap distribution for the class of translation surfaces given by gluing two identical tori along a slit. No prior background on translation surfaces or gap distributions will be assumed.

Host: Nattalie Tamam

**Tuesday, October 20, 2020**

**10:00 AM**

**Zoom Meeting ID 967 4109 3409 (email  
Nattalie Tamam or Brandon Seward for the  
password)**

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