



The Math/Stats Colloquium
Department of Mathematics and Statistics
San José State University



Tim Hsu
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**Cube complexes, 3-manifolds,
and the Virtually Fibered Conjecture**

APRIL 15, 2015, MH320

Abstract: Until recently, the *Virtual Haken Conjecture* was probably the biggest open problem in 3-manifolds (3-dimensional geometry). However, in 2012, Ian Agol proved the stronger *Virtually Fibered Conjecture* by completing part of Dani Wise's program of studying *nonpositively curved cube complexes*. So how did questions in 3-dimensional geometry end up being resolved using spaces made from high-dimensional cubes? We'll give an overview explaining the connection and describe the speaker's joint work with Wise that is part of the emerging and rapidly growing subject of cube complexes.

Background: One semester abstract algebra; no previous experience with topology will be required.

About the speaker: Tim Hsu received his Ph.D. from Princeton Univ., and after teaching at U. Michigan and Pomona College, has been at SJSU since 2001. His research interests include geometric group theory and combinatorics.

SNACKS IN MH331B AT 2:30 PM
TALKS START AT 3 PM

For more information, see our full schedule at:

<http://www.math.sjsu.edu/~hsu/colloq/>