

# Workshop on Representation Theory, Geometry & Combinatorics

Organizer: Mark Haiman

Monday June 2–Friday June 6, 9:30–5:00pm, Bechtel 120ABC

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**Alexander Woo**, UC Davis

*When is the Kazhdan-Luzstig polynomial  $P_{id,w}$  equal to  $1 + q^h$ ?*

I will outline a proof of a conjecture of Billey and Braden giving a combinatorial characterization of permutations  $w$  having the property that the Kazhdan-Luzstig polynomial  $P_{id,w}(q) = 1 + q^h$  for some  $h$ . The new portion of the proof is geometric, using the Decomposition Theorem and a resolution of singularities introduced by Cortez.