1147-05-904 **Federico Ardila**, San Francisco State University, Universidad de los Andes, Simons Institute for the Theory of Computing, **Chiemi Kato**, San Francisco State University, **Jewell McMillon**, San Francisco State University, **Maria Isabel Perez*** (miperez@mail.sfsu.edu), San Francisco State University, and **Anna Schindler**, North Seattle College, San Francisco State University.
Spectra of tropical Laplacians of Classical Root Polytopes. Preliminary report.

Farhad Babaee and June Huh introduced the tropical Laplacian of a tropical surface and used it to disprove a generalized Hodge conjecture. We study four families of tropical surfaces arising from the root polytopes of types A, B, C and D. We compute the spectra of their tropical Laplacians for type A, and describe them conjecturally for types B, C and D. Our results confirm that these tropical Laplacians have exactly one negative eigenvalue, as anticipated by Babaee and Huh. The talk will assume no previous knowledge of the subject. (Received January 29, 2019)