

1103-05-193

Christian Stump* (christian.stump@fu-berlin.de), **Hugh Thomas** and **Nathan Williams**. *Generalized cluster complexes and a new m -Tamari lattice.*

In this talk, I will discuss how one can use subword complexes for Artin groups to understand generalized cluster complexes as defined and studied by S. Fomin and N. Reading. This new description yields, in particular, a natural way of defining a poset structure on the facets of the generalized cluster complex. As these are well-known to be counted by the Fuß-Catalan numbers, one might hope to obtain the m -Tamari poset studied in the recent past by several authors. Surprisingly, it turns out that these two lattices do not coincide, even though they share many combinatorial properties, such as a way to obtain the h -polynomial of the generalized cluster complex. (Received August 19, 2014)