

1154-05-2232

**Greta Panova\*** ([gpanova@usc.edu](mailto:gpanova@usc.edu)), Los Angeles, CA 90089. *Lozenge tilings in Algebraic Combinatorics.*

Lozenge tilings (dimer covers of the hexagonal lattice) are naturally related to objects from Algebraic Combinatorics like plane partitions and Semi-Standard Young Tableaux. We will show how their limiting behavior can be studied via algebraic tools like the Schur functions, and derive limit shapes (surfaces) in the case of global symmetries. We will also show how lozenge tilings arise in connection with the enumeration of Standard Young Tableaux. This talk will touch on many different results with a variety of coauthors (V. Gorin, A. Morales, I. Pak etc). (Received September 17, 2019)