1150-92-573 **Elizabeth Gross*** (egross@hawaii.edu), Honolulu, HI 96822, and **Cvetelina Hill** (cvetelina.hill@gatech.edu). *Mixed volumes of steady-state systems.*

The steady-state degree of a chemical reaction network is the number of complex solutions to the steady-state system for generic parameters. In general, the steady-state degree may be difficult to compute, but it can be bounded above by the mixed volume of the system. In this presentation, using tools from combinatorial polyhedral geometry, we compute the mixed volume for three infinite families of networks, each generated by joining smaller networks to create larger ones. Each of these examples illustrate a different relationship between the steady-state degree and the mixed volume of the steady-state system. (Received July 16, 2019)