On Stokes sets
Yuliy Baryshnikov, University of Illinois at Urbana-Champaign

Stokes phenomenon describes subtle changes in asymptotic expansions of integrals depending on parameters and is governed by topology of the steepest descent contours. The Stokes sets are the parameter values where these changes happen.

I will describe the combinatorics of Stokes sets (associahedra make a cameo appearance) for the oscillating integrals with polynomial phases (generalizing Airy and Pearcey functions).