
TODD MULLEN, University of Saskatchewan
Recent Results in Diffusion

Diffusion is a variant of Chip-Firing in which every vertex sends a chip to each of its poorer neighbours at every time step. Duffy et al. conjectured in the original paper on the topic (2018) that Diffusion is always a periodic process with only periods of length 1 and 2. This was proven by Long and Narayanan (2019). We discuss recent work on this model, some of which arose from Long and Narayanan's proof. This work includes the number of unique configurations that exist on paths and complete graphs up to a definition of equality and some different period lengths that arise from altering the firing rules. This is joint work with Richard Nowakowski (Dalhousie) and Danielle Cox (MSVU).