

The Duality of Critical and Super-stable Configurations of Chip Firing Games on Directed Graphs

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Abstract: In the talk we show a collection of firing scripts which help recognizing critical configurations of chip firing games on directed graphs. Using these firing scripts we prove a universal property of critical configurations saying that we cannot get any stable configuration from a given critical configuration by inverse firing a multi-subset of vertices. This property allows us to prove the duality of critical and super-stable configurations on directed graphs.

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