Is there a burning algorithm that checks whether a con-
sider configurations are equal to the super-stable
Can multiple stable configurations be reached from
Do all initial configurations eventually stabilize?
Is there a duality between the critical configurations and
There is a unique critical configuration reachable
A vertex $v$ is ready to fire if $c(v)$ is greater than or equal to the number of neighbors of $v$. The sink is always ready to
but a legal sequence of firings is one in which the sink does not fire unless all other vertices cannot fire.

Some questions about the behavior of these games:
- Do all initial configurations eventually stabilize?
- Can a configuration be reached again through legal firings?
- Can multiple stable configurations be reached from the same starting point depending on the choices made in the game?

Stability
A chip configuration $C$ is said to be stable if $C_i = c(v_i) < d(v_i)$ for all vertices $v_i$. This means that no vertex is ready to fire (except for the sink).

Recurrence
A sequence of firings is legal in the chip-firing game with a sink if a non-sink vertex is only fired if it is ready to fire and the sink only fires when no other vertex can fire. A configuration $C$ is said to be recurrent if there is a legal sequence of firings such that $C$ recurs.

Criticality
A configuration is said to be critical if it is both stable and recurrent.

Super-Stability
A configuration is said to be super-stable if no subset of vertices is allowed to fire.
- The number of criticals = number of superstables = number of spanning trees of the graph.
- There is a unique critical configuration reachable from any state through legal firings. There are also other ways of considering the firings, such as representing chips by grains of sand - known as Sand-Pile Models.

Some Open Questions
- Is there a duality between the critical configurations and the super-stable configurations in the invertible matrix case?
- Is there a burning algorithm that checks whether a configuration is super-stable or not?
- If the all zeros configuration is critical, does that imply that all the critical configurations are super-stable?
- If the critical configurations are equal to the super-stable configurations, what are the constraints on the matrix $M$?