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Labeled chip firing

We consider chip firing on the doubly infinite path graph with chips labeled 1,...,n. When an unstable vertex is fired, the chip with a smaller label is sent to the adjacent vertex on the left and the other chip is sent to the right. Remarkably, when the chips all start at a common vertex and the number of chips is even, this process always leads to the same stable configuration. We view this as a property of root systems of type A of odd rank. I will discuss our proof of this result and our results for other root systems. This is joint work with Pavel Galashin, Sam Hopkins, Alex Postnikov, and Jim Propp.