

## THE RRR METHOD FOR THE EXACT ANALYSIS OF REPEATING MARKOV CHAINS WITH UNI-DIRECTIONAL TRANSITIONS

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Infinite repeating Markov chains come up in many problems and are typically only solvable via numerical methods, such as matrix-analytic methods. In this talk, we introduce the Recursive Renewal Reward (RRR) method for solving a large class of repeating Markov chains, exactly, in closed form. We apply RRR towards analyzing an M/M/k with setup times for turning on servers.