Efficient Computations for the Discrete GI/G/1 System

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In this talk, we consider the discrete-time GI/G/1 system with discrete interarrival times and service times distributions that have finite supports, and formulate it as a PH/PH/1 system. We then take advantage of the resulting special structure to develop efficient methods for computing its rate matrices and stationary distributions.

This is a joint work with A. S. Alfa.