

MATCHING QUEUES WITH FLEXIBLE SERVERS

Mor Harchol-Balter, Carnegie Mellon University, Pittsburgh, PA, harchol@cs.cmu.edu

Kristen Gardner, Carnegie Mellon University, Pittsburgh, PA, ksgardne@cs.cmu.edu

Sherwin Doroudi, Carnegie Mellon University, Pittsburgh, PA, sdoroudi@andrew.cmu.edu

Alan Scheller-Wolf, Carnegie Mellon University, Pittsburgh, PA, awolf@andrew.cmu.edu

We are motivated by online games where players seek partners of rating (level) similar to their own to play against, but where the players become more “flexible” over time if they haven’t yet been matched. We illustrate a new method, Recursive Renewal Reward (RRR), for analyzing such systems.