

# DISI – UNIVERSITY OF TRENTO

Master in Computer Science AA 2014/2015

Simulation and Performance Evaluation

## Simulation of a simple queuing network

Configuration for Pham Xuan Quynh Nguyen

### Arrival Process

We do not have an arrival process, the queuing system is closed with  $K = 10$  customers.

### Stations

QS1:  $-/M/1/FIFO$ ; average service rate  $\mu = 1$ .

QS2:  $-/G/2/FIFO$ ; the service time  $T$  is uniformly distributed between 1 and 10.

QS3:  $-/M/10$ ; average service rate (per server)  $\mu = 0.1$ .

### Routing probabilities

$p_{i,j}$  is the probability that a customer services in queue  $i$  goes to queue  $j$ .

		j		
		1	2	3
i	1	0.0	0.4	0.6
	2	0.2	0.3	0.5
	3	0.0	0.4	0.6
		$p_{ij}$		