

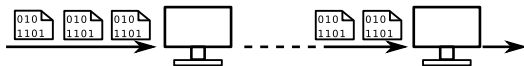
# Product form queueing networks in a random environment

Ruslan Krenzler, Hans Daduna, Sonja Otten

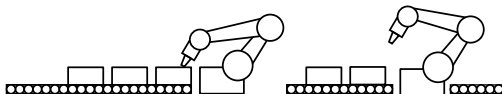
Universität Hamburg  
Fachbereich Mathematik

The 2014 Stochastic Networks Conference June 23-27 2014,  
Amsterdam, Netherlands

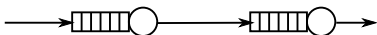
## Communication network



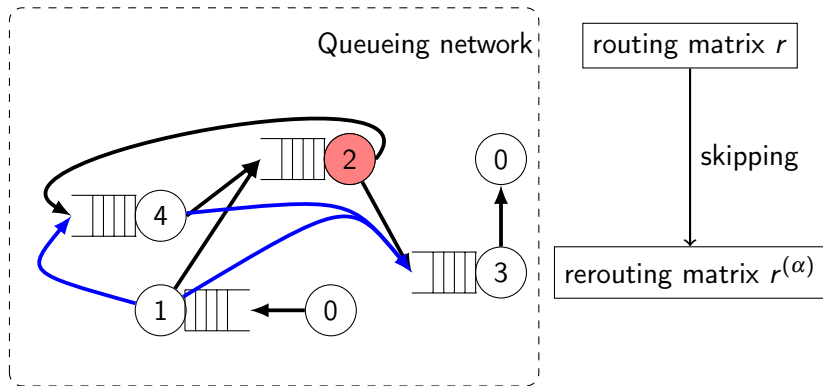
## Production system



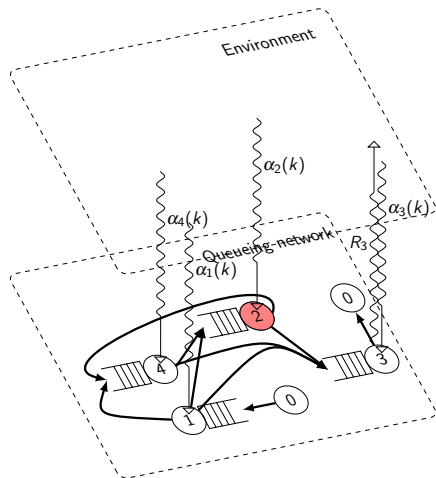
## Queueing network



# Jackson network with degrading nodes



# Jackson network in a random environment



## Steady state distribution

- decomposition in network-problem and environment-problem
- product form