Moeschlin, O.; **Poppinga, C.**
Minimal waiting times in static traffic control. (English) Zbl 1048.90070
J. Appl. Math. Decis. Sci. 7, No. 1, 11-28 (2003).

Summary: The paper discusses the question of the optimal control of an unsymmetric bottleneck system with Poisson arrival processes having the minimization of the mean individual waiting time as objective. The setup allows the straightforward generalization to more complicated forms of traffic organization. The notion of the mean individual waiting time is based on a theorem of the little type, which is derived by a strong law of large numbers. The proof makes use of McNeil's formula, which connects the expected total waiting time with the expected queue length.

MSC:

90B20 Traffic problems in operations research
90C40 Markov and semi-Markov decision processes

Full Text: DOI EuDML