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**A duplex cyclic polling system for mixed queues.** (English. Russian original) [Zbl 1180.90041](#)  
*Autom. Remote Control* 70, No. 12, 2050-2060 (2009); translation from *Avtom. Telemekh.* 2009, No. 12, 121-133 (2009).

**Summary:** We consider a new mathematical model that adequately represents the workings of a cyclic polling system in high-speed wireless MESH-networks. The queues are serviced by two processing units (servers) in a cyclic fashion. Part of the queues are available for cyclic polling for both servers; each of the remaining queues is attached to its “own” processing unit in the servicing cycle. To study this system, we have applied the mean value approach and have obtained analytic expressions for average waiting times of claims in the queues and other characteristics. The paper also presents numerical examples.

**MSC:**

- [90B15](#) Stochastic network models in operations research
- [91B12](#) Voting theory
- [90B22](#) Queues and service in operations research

**Full Text:** [DOI](#)

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