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Floske M. Spieksma* (spieksma@math.leidenuniv.nl), Niels Bohrweg 1, 2311KL Leiden, Netherlands. *Monotonicity properties of the single server queue with abandonments and retrials by coupling.*

We study a single server queue with impatient customers that can retry, if they renege. Each customer has a static joining rule that determines whether the customer enters the system upon arrival. We are interested in the structural properties of the value function of the system, as a function of the joining rule. The derivation of structural properties cannot be done using standard mathematical tools, since the analysis is hindered due to the fact that the system is not uniformisable. We present a general coupling method that overcomes the limitations of standard techniques and allows for the derivation of structural properties.

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