

Review of: "Counting Processes with Multiple Randomness: Examples in Queuing Theory"

Paola Paraggio¹

¹ University of Salerno

Potential competing interests: No potential competing interests to declare.

In this work, the author introduces a new class of stochastic processes, i.e. counting processes with multiple randomness. Such processes, differently from the usual counting processes, possess inter-event times defined on proper subsets of the sample space. Therefore, they do not have marginal distributions. The existence of such processes may show the inconsistency of Burke's theorem and of Jackson's theorem.

I suggest to review the structure and the organization of the whole paper, especially of Section 2, in order to simplify the reading. For example, some general results and background about random variables and random vectors are located in the middle of Section 2 which is about GI/GI/1 queue.

I would have rathered more accurate and clear proofs of the novel results and of the flaws of Burke's theorem and Jackson's theorem.

In conclusion, the paper is well written but the scientific argumentation can be improved.