Erratum

The size of random bucket trees via urn models

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The Equation (2) in [1] is not exact as claimed. It is only approximate, and there are error terms that seem hard to determine. However, it gives a basis for a good heuristic based on the observation that the interarrival time t_n is highly concentrated around its mean. The relation (3) is therefore approximate, though it can be proved rigorously in several special cases, and is observed experimentally in all the cases. The results of the heuristic agree closely with extensive simulation. The companion paper [2] explains the working of the heuristic in a broader class of urns.

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References

1. Mahmoud, H. (2002) The size of random bucket trees via urn models. Acta Informatica **38**, 813–838
2. Mahmoud, H. (2004) Random sprouts as Internet models, and Pólya processes. Acta Informatica DOI 10.1007/s00236-004-146-y

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