

On the paper “Limit theorems for forward and backward processes. . .”

by M.G. Chebunin and A.P. Kovalevskii

The authors study classical infinite urn schemes and provide statistical tests based on the proven FCLT. I can recommend the paper for publication in SEMR provided minor corrections I indicate below. I am sure that the authors will be able to do this without my further intervention.

1. Page 145. Bottom after (7). It looks the references to formulas (6) and (7) are interchanged. Please, check.
2. 145₃ uniform metric (not plural, metrics). The same in the formulation of Theorem 1.
3. 146¹: particular case
4. 145 Theorem 1: $K(s, t)$ is given by
5. 147, just after the proof of Th. 3. convergers to θ at rate
6. 148⁵ For the second statement, let (comma is missing)
7. 148 just after the proof of Th. 4. By Theorem 1 (remove ‘the’)
8. 148 Corr 1: is given by THE covariance function
9. 149¹ the null hypothesis
10. 149³ is the value of
11. 149⁴ use either ‘Smirnov’s formula’ or ‘the Smirnov formula’(if speaking about a type of formula à la’ Smirnov, not necessarily the exact form as in his paper)
12. 149¹⁰ of the kernel
13. 149₄ Let us demonstrate it
14. 150⁸ uniformly in $t \in [0, 1]$
15. 150⁹ Change ‘Really’ to ‘Indeed’ or ‘Then’
16. 150₁₀ uniformly in. . . we have a joint weak
17. 151³ I suggest the following edit:
approach described in [...] with λ_k replaced by the eigenvalues $\widehat{\lambda}_k$ of the kernel in Smirnov’s formula
18. 151⁶ THE number of balls

19. 151^8 number $\Pi(n)$ of balls. According to THE well-known
20. 151^{10} intensities p_i WHICH are
21. 151 bottom: Step 2: Analogously to THE proof[...] in Dutko (1989), (comma)[...] THE triangular array [...] THE Lindeberg condition (see my comment on 'Smirnov's' above: here we do not assume that Lindeberg has exactly the same form of the condition, so we do not use 'Lindeberg's condition'!)
22. 152 Step 3: THE relative compactness, Step 4: THE proof