

ADDENDA

ON THE DISTRIBUTION OF THE SQUARE INTEGRAL OF THE BROWNIAN BRIDGE

BY LEONID TOLMATZ

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EDITOR'S NOTE. The following Note Added in Proof and tables were inadvertently omitted from the original publication. The editorial staff regrets the error.

NOTE ADDED IN PROOF. The author has recently learned, following a personal communication with J. Pitman, that the Laplace inversion in Theorem 2 is already known in the literature; see J. Kiefer, *K*-sample analogues of the Kolmogorov–Smirnov and Cramér–von Mises tests, *Annals of Mathematical Statistics* (1959) **30** 420–447. The latter paper also contains tables of the distribution function $F(\lambda)$; however, Table 4 in the present paper provides more accurate values in certain entries.

TABLE 2
Laguerre coefficients c_n

<i>n</i>	<i>c_n</i>	<i>n</i>	<i>c_n</i>
1	−0.000000	11	−0.0430954
2	−0.000000	12	−0.0329393
3	−0.117216	13	−0.0241829
4	−0.110321	14	−0.0166219
5	−0.12035	15	−0.0102143
6	−0.106117	16	−0.00481523
7	−0.0954654	17	−0.000325886
8	−0.0804642	18	0.00337011
9	−0.0673346	19	0.00636984
10	−0.0544117	20	0.00876698

TABLE 3
The density function $f(\lambda)$

λ	<i>f</i> (λ)	λ	<i>f</i> (λ)	λ	<i>f</i> (λ)	λ	<i>f</i> (λ)
0.01	0.007323	0.26	1.185236	0.51	0.218958	0.76	0.0505168
0.02	0.934186	0.27	1.097332	0.52	0.205966	0.77	0.047732

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TABLE 3
Continued

λ	$f(\lambda)$	λ	$f(\lambda)$	λ	$f(\lambda)$	λ	$f(\lambda)$
0.03	3.284581	0.28	1.017156	0.53	0.193799	0.78	0.045106
0.04	5.157178	0.29	0.943896	0.54	0.182401	0.79	0.042629
0.05	6.073098	0.30	0.876837	0.55	0.171717	0.80	0.040292
0.06	6.300095	0.31	0.815353	0.56	0.161699	0.81	0.038087
0.07	6.137698	0.32	0.758889	0.57	0.152301	0.82	0.036006
0.08	5.783756	0.33	0.706957	0.58	0.143482	0.83	0.034042
0.09	5.351762	0.34	0.659123	0.59	0.135202	0.84	0.032188
0.10	4.902706	0.35	0.615003	0.60	0.127427	0.85	0.030438
0.11	4.467614	0.36	0.574257	0.61	0.120122	0.86	0.028785
0.12	4.060998	0.37	0.536579	0.62	0.113258	0.87	0.027225
0.13	3.688471	0.38	0.501698	0.63	0.106805	0.88	0.025751
0.14	3.350972	0.39	0.469370	0.64	0.100738	0.89	0.024359
0.15	3.047084	0.40	0.439377	0.65	0.095031	0.90	0.023043
0.16	2.774314	0.41	0.411523	0.66	0.089663	0.91	0.021801
0.17	2.529772	0.42	0.385632	0.67	0.084612	0.92	0.020627
0.18	2.310536	0.43	0.361544	0.68	0.079855	0.93	0.019518
0.19	2.113831	0.44	0.339115	0.69	0.075378	0.94	0.018469
0.20	1.937112	0.45	0.318214	0.70	0.071162	0.95	0.017478
0.21	1.778091	0.46	0.298723	0.71	0.067191	0.96	0.016542
0.22	1.634734	0.47	0.280534	0.72	0.063449	0.97	0.015656
0.23	1.505249	0.48	0.263549	0.73	0.059924	0.98	0.014819
0.24	1.388062	0.49	0.247678	0.74	0.056602	0.99	0.014028
0.25	1.281794	0.50	0.232839	0.75	0.053470	1.00	0.013280

TABLE 4
The distribution function $F(\lambda)$

λ	$F(\lambda)$	λ	$F(\lambda)$	λ	$F(\lambda)$	λ	$F(\lambda)$
0.01	0.000006	0.26	0.823958	0.51	0.962425	0.76	0.990876
0.02	0.003001	0.27	0.835364	0.52	0.964549	0.77	0.991367
0.03	0.023831	0.28	0.845930	0.53	0.966547	0.78	0.991831
0.04	0.066851	0.29	0.855730	0.54	0.968427	0.79	0.992270
0.05	0.123719	0.30	0.864829	0.55	0.970197	0.80	0.992684
0.06	0.186020	0.31	0.873285	0.56	0.971864	0.81	0.993076
0.07	0.248436	0.32	0.881153	0.57	0.973434	0.82	0.993446
0.08	0.308145	0.33	0.888478	0.58	0.974912	0.83	0.993797
0.09	0.363856	0.34	0.895305	0.59	0.976305	0.84	0.994128
0.10	0.415127	0.35	0.901673	0.60	0.977618	0.85	0.994441
0.11	0.461959	0.36	0.907617	0.61	0.978855	0.86	0.994737
0.12	0.504575	0.37	0.913168	0.62	0.980022	0.87	0.995017
0.13	0.543293	0.38	0.918358	0.63	0.981122	0.88	0.995282
0.14	0.578461	0.39	0.923211	0.64	0.982159	0.89	0.995532
0.15	0.610424	0.40	0.927753	0.65	0.983138	0.90	0.995769
0.16	0.639507	0.41	0.932005	0.66	0.984061	0.91	0.995993

TABLE 4
Continued

λ	$F(\lambda)$	λ	$F(\lambda)$	λ	$F(\lambda)$	λ	$F(\lambda)$
0.17	0.666005	0.42	0.935990	0.67	0.984932	0.92	0.996205
0.18	0.690186	0.43	0.939724	0.68	0.985754	0.93	0.996406
0.19	0.712291	0.44	0.943226	0.69	0.986530	0.94	0.996596
0.20	0.732530	0.45	0.946512	0.70	0.987262	0.95	0.996775
0.21	0.751092	0.46	0.949595	0.71	0.987954	0.96	0.996946
0.22	0.768144	0.47	0.952490	0.72	0.988607	0.97	0.997107
0.23	0.783833	0.48	0.955210	0.73	0.989224	0.98	0.997259
0.24	0.798290	0.49	0.957765	0.74	0.989806	0.99	0.997403
0.25	0.811630	0.50	0.960167	0.75	0.990356	1.00	0.997540

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JERUSALEM, 96750

ISRAEL

E-MAIL: qwsxczcy@mail.netvision.net.il