

Discrete Two-Dimensional Random Variable

Theoretical probability matrix:

0.01631	0.00692	0.00835	0.01663	0.00069	0.01072	0.00327	0.00066	0.00926	0.01477	0.01359	0.00839
0.00892	0.00030	0.01369	0.00465	0.00826	0.00619	0.01660	0.00654	0.00436	0.00693	0.01331	0.00850
0.01226	0.01258	0.00134	0.01605	0.01024	0.01119	0.00559	0.01574	0.01080	0.01093	0.01296	0.01711
0.00353	0.00015	0.01098	0.01071	0.00494	0.00080	0.00755	0.01295	0.01352	0.01129	0.00759	0.00055
0.01067	0.00898	0.00831	0.00599	0.01253	0.00916	0.00498	0.01020	0.00833	0.01487	0.00827	0.00293
0.01572	0.00900	0.01072	0.01048	0.01692	0.01250	0.01708	0.00016	0.01080	0.01530	0.00305	0.01469
0.01285	0.00090	0.01722	0.01358	0.01324	0.00485	0.01526	0.00094	0.01279	0.00951	0.01020	0.01082
0.00416	0.00670	0.01403	0.00226	0.01392	0.00028	0.00531	0.00474	0.01462	0.01435	0.00444	0.00527
0.00938	0.00787	0.01186	0.01044	0.01299	0.01124	0.01640	0.00616	0.00922	0.00718	0.00591	0.00829

1st random variable values:

0.01556	0.76198	0.32462	0.86748	0.20334	0.88076	0.12378	0.07027	0.36010			
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2nd random variable values:

0.22880	0.42172	0.52856	0.86997	0.35504	0.79771	0.48540	0.25126	0.91829	0.68853	0.05818	0.66811
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Empirical probability matrix:

0.01643	0.00640	0.00907	0.01648	0.00044	0.01104	0.00324	0.00083	0.00876	0.01520	0.01402	0.00824
0.00872	0.00026	0.01415	0.00495	0.00951	0.00578	0.01643	0.00697	0.00390	0.00697	0.01385	0.00837
0.01223	0.01179	0.00167	0.01516	0.01017	0.01157	0.00570	0.01577	0.01117	0.01174	0.01301	0.01665
0.00320	0.00018	0.00968	0.01126	0.00543	0.00092	0.00780	0.01240	0.01328	0.01074	0.00758	0.00057
0.01030	0.00881	0.00758	0.00535	0.01218	0.00859	0.00517	0.00920	0.00824	0.01512	0.00780	0.00267
0.01542	0.00977	0.01052	0.01056	0.01709	0.00995	0.01814	0.00026	0.01122	0.01516	0.00342	0.01393
0.01201	0.00096	0.01731	0.01420	0.01380	0.00556	0.01704	0.00105	0.01279	0.00903	0.01034	0.01209
0.00390	0.00600	0.01481	0.00202	0.01512	0.00018	0.00478	0.00451	0.01389	0.01490	0.00464	0.00443
0.00929	0.00741	0.01271	0.01183	0.01214	0.01218	0.01569	0.00587	0.00942	0.00714	0.00574	0.00911

Random variables values stats:

- general:

375	146	207	376	10	252	74	19	200	347	320	188
199	6	323	113	217	132	375	159	89	159	316	191
279	269	38	346	232	264	130	360	255	268	297	380
73	4	221	257	124	21	178	283	303	245	173	13
235	201	173	122	278	196	118	210	188	345	178	61
352	223	240	241	390	227	414	6	256	346	78	318
274	22	395	324	315	127	389	24	292	206	236	276
89	137	338	46	345	4	109	103	317	340	106	101
212	169	290	270	277	278	358	134	215	163	131	208

- 1st RV:

2514	2279	3118	1895	2305	3091	2880	2035	2705			
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0.11016	0.09986	0.13662	0.08303	0.10100	0.13544	0.12619	0.08917	0.11853			
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- 2nd RV:

2088	1177	2225	2095	2188	1501	2145	1298	2115	2419	1835	1736
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0.09149	0.05157	0.09749	0.09180	0.09587	0.06577	0.09399	0.05687	0.09267	0.10599	0.08040	0.07607
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Population expectation:

0.39946	0.53409										
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Sample expectation:

0.39858	0.53407										
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Population variance:

0.10322	0.06786										
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Sample variance:

0.10301	0.06774										
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Confidence level:

0.95000											
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Confidence interval for sample expectation:

- 1st RV:

0.39442	0.40274										
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- 2nd RV:

0.53070	0.53745										
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Confidence interval for sample variance:

- 1st RV:

0.10114	0.10492										
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- 2nd RV:

0.06651	0.06900										
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Population correlation coefficient:

-0.00920											
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Sample correlation coefficient:

-0.01591											
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Significance level:

0.05000											
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Chi-square test:

- statistic:

95.88599											
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- p-value:

0.26518											
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The result is statistically non-significant.