Testbericht: NIST Zufallstest
Datensatz: 100 MBIT Quantenzufallszahlen
Datum: 08.05.2009
Parameter: Alpha=0,001
Lab-user: P.Bronner
Universität Erlangen, Didaktik der Physik

```
------------------------------------------------------------------------
RESULTS FOR THE UNIFORMITY OF P-VALUES AND THE PROPORTION OF PASSING SEQUENCES
------------------------------------------------------------------------
    generator is <08.05.2009-20.15.40a.100000000bits.txt>
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C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	P-VALUE	PROPORTION	STATISTICAL TEST
12	15	13	10	6	11	7	15	4	7	0.145326	0.9900	Frequency
10	11	10	7	16	13	12	10	4	7	0.319084	1.0000	BlockFrequency
12	11	18	9	5	7	9	9	10	10	0.304126	0.9900	CumulativeSums
14	8	16	9	9	10	10	10	7	7	0.574903	0.9900	CumulativeSums
9	8	8	7	16	6	19	7	9	11	0.062821	1.0000	Runs
10	11	9	6	9	11	14	9	11	10	0.924076	1.0000	LongestRun
12	6	10	6	14	14	8	12	5	13	0.275709	1.0000	Rank
1	4	4	11	10	12	16	14	16	12	0.002971	1.0000	FFT
10	11	13	14	4	6	8	9	14	11	0.350485	1.0000	NonOverlappingTemplate
7	5	11	5	13	17	9	13	13	7	0.102526	1.0000	NonOverlappingTemplate
12	8	8	13	11	20	6	12	6	4	0.021999	0.9900	NonOverlappingTemplate
9	9	3	8	11	8	10	18	8	16	0.058984	1.0000	NonOverlappingTemplate
10	5	8	8	10	14	11	12	10	12	0.759756	1.0000	NonOverlappingTemplate
8	12	3	14	11	10	14	14	7	7	0.191687	1.0000	NonOverlappingTemplate
8	11	9	11	10	9	13	7	13	9	0.935716	1.0000	NonOverlappingTemplate
7	10	6	9	15	9	14	12	8	10	0.574903	1.0000	NonOverlappingTemplate
10	8	13	8	11	9	14	9	9	9	0.924076	0.9900	NonOverlappingTemplate
11	6	11	9	8	14	12	8	15	6	0.455937	1.0000	NonOverlappingTemplate
12	10	10	13	9	5	10	10	7	14	0.699313	1.0000	NonOverlappingTemplate
7	13	11	10	11	13	8	9	8	10	0.924076	1.0000	NonOverlappingTemplate
9	13	8	21	7	10	9	8	8	7	0.062821	1.0000	NonOverlappingTemplate
11	12	9	11	10	13	8	11	11	4	0.759756	1.0000	NonOverlappingTemplate
13	4	13	11	12	5	11	14	10	7	0.275709	1.0000	NonOverlappingTemplate
10	9	13	11	10	13	4	6	15	9	0.366918	1.0000	NonOverlappingTemplate
10	8	13	12	16	8	5	10	6	12	0.334538	1.0000	NonOverlappingTemplate
13	13	6	8	9	14	8	4	14	11	0.262249	1.0000	NonOverlappingTemplate

12	7	8	14	11	9	10	7	11	11	0.867692	1.0000	NonOverlappingTemplate
7	9	14	11	9	12	13	8	9	8	0.834308	1.0000	NonOverlappingTemplate
10	5	11	6	11	10	12	12	13	10	0.739918	0.9900	NonOverlappingTemplate
9	10	5	12	9	12	10	11	9	13	0.867692	0.9900	NonOverlappingTemplate
14	8	3	7	13	15	10	10	8	12	0.213309	1.0000	NonOverlappingTemplate
12	12	9	12	6	12	10	7	12	8	0.834308	1.0000	NonOverlappingTemplate
9	14	15	12	4	6	9	13	9	9	0.275709	1.0000	NonOverlappingTemplate
14	6	9	11	16	10	7	11	8	8	0.455937	1.0000	NonOverlappingTemplate
6	11	8	10	14	8	9	15	10	9	0.657933	0.9900	NonOverlappingTemplate
7	9	15	9	12	9	9	12	8	10	0.834308	0.9900	NonOverlappingTemplate
12	9	4	19	9	7	13	12	9	6	0.062821	1.0000	NonOverlappingTemplate
10	15	12	9	6	8	10	9	11	10	0.816537	1.0000	NonOverlappingTemplate
9	7	14	13	8	6	9	13	7	14	0.437274	1.0000	NonOverlappingTemplate
12	12	10	10	10	15	6	6	8	11	0.637119	1.0000	NonOverlappingTemplate
10	11	13	9	6	10	13	11	8	9	0.897763	0.9900	NonOverlappingTemplate
10	7	10	11	13	11	10	7	7	14	0.798139	1.0000	NonOverlappingTemplate
12	14	6	10	10	8	17	8	6	9	0.275709	1.0000	NonOverlappingTemplate
14	6	8	13	12	10	9	14	8	6	0.474986	1.0000	NonOverlappingTemplate
14	8	11	9	9	10	12	6	10	11	0.883171	1.0000	NonOverlappingTemplate
8	11	15	13	4	13	12	9	8	7	0.334538	1.0000	NonOverlappingTemplate
11	5	7	11	9	13	11	15	11	7	0.514124	1.0000	NonOverlappingTemplate
9	9	5	14	9	8	9	12	9	16	0.437274	1.0000	NonOverlappingTemplate
14	10	10	13	10	7	11	8	3	14	0.319084	1.0000	NonOverlappingTemplate
10	12	12	10	10	11	6	8	14	7	0.798139	1.0000	NonOverlappingTemplate
9	11	10	8	10	7	14	9	12	10	0.935716	1.0000	NonOverlappingTemplate
11	9	11	10	8	8	8	11	13	11	0.978072	1.0000	NonOverlappingTemplate
9	12	12	11	12	13	8	6	5	12	0.616305	1.0000	NonOverlappingTemplate
9	10	13	9	8	12	12	7	13	7	0.834308	1.0000	NonOverlappingTemplate
10	11	7	9	10	9	10	7	17	10	0.637119	1.0000	NonOverlappingTemplate
7	12	11	6	15	9	12	9	8	11	0.678686	1.0000	NonOverlappingTemplate
8	8	14	15	8	10	11	15	9	2	0.108791	1.0000	NonOverlappingTemplate
3	12	12	7	9	16	4	8	18	11	0.013569	1.0000	NonOverlappingTemplate
14	5	8	15	11	9	9	8	5	16	0.129620	1.0000	NonOverlappingTemplate
8	11	12	15	7	11	9	9	7	11	0.779188	1.0000	NonOverlappingTemplate
11	14	9	8	14	13	6	6	12	7	0.419021	1.0000	NonOverlappingTemplate
9	9	13	14	11	13	13	4	7	7	0.350485	0.9900	NonOverlappingTemplate
12	7	8	11	14	12	13	3	11	9	0.366918	1.0000	NonOverlappingTemplate
7	16	8	9	11	8	4	12	12	13	0.289667	1.0000	NonOverlappingTemplate
15	8	12	8	10	12	8	4	10	13	0.437274	1.0000	NonOverlappingTemplate
5	15	6	9	14	13	6	13	11	8	0.202268	1.0000	NonOverlappingTemplate
6	4	5	10	10	18	16	14	10	7	0.016717	0.9900	NonOverlappingTemplate
6	13	15	8	12	11	10	5	8	12	0.419021	1.0000	NonOverlappingTemplate
11	12	14	10	7	10	8	11	6	11	0.816537	1.0000	NonOverlappingTemplate

13	17	13	11	8	11	4	9	11	3	0.066882	1.0000	NonOverlappingTemplate
13	9	13	9	10	12	5	8	14	7	0.554420	0.9900	NonOverlappingTemplate
5	13	7	16	12	9	7	13	9	9	0.319084	1.0000	NonOverlappingTemplate
9	8	8	11	6	10	15	13	4	16	0.153763	1.0000	NonOverlappingTemplate
11	8	15	10	10	11	5	10	11	9	0.759756	1.0000	NonOverlappingTemplate
13	12	15	9	6	5	8	12	10	10	0.455937	1.0000	NonOverlappingTemplate
11	7	16	7	10	12	11	6	11	9	0.554420	1.0000	NonOverlappingTemplate
10	12	8	7	17	5	9	12	10	10	0.383827	1.0000	NonOverlappingTemplate
11	8	11	9	10	11	12	9	8	11	0.994250	1.0000	NonOverlappingTemplate
9	12	14	13	9	6	14	7	5	11	0.366918	1.0000	NonOverlappingTemplate
11	12	8	7	12	7	7	7	14	15	0.437274	1.0000	NonOverlappingTemplate
18	13	10	4	12	3	7	9	10	14	0.026948	0.9900	NonOverlappingTemplate
12	13	11	8	8	12	3	16	9	8	0.236810	1.0000	NonOverlappingTemplate
10	11	13	14	4	6	8	11	12	11	0.455937	1.0000	NonOverlappingTemplate
13	9	7	6	11	9	10	15	14	6	0.401199	1.0000	NonOverlappingTemplate
12	8	8	10	10	8	14	6	14	10	0.699313	1.0000	NonOverlappingTemplate
19	7	11	13	11	3	13	6	11	6	0.023545	1.0000	NonOverlappingTemplate
17	12	13	15	8	6	8	7	7	7	0.129620	1.0000	NonOverlappingTemplate
9	11	10	8	10	10	10	14	7	11	0.955835	1.0000	NonOverlappingTemplate
7	6	11	11	8	11	12	7	16	11	0.514124	1.0000	NonOverlappingTemplate
9	10	13	10	10	14	11	8	5	10	0.779188	1.0000	NonOverlappingTemplate
10	10	12	3	14	10	10	16	9	6	0.202268	1.0000	NonOverlappingTemplate
13	11	7	10	8	12	8	14	12	5	0.574903	1.0000	NonOverlappingTemplate
9	9	12	12	15	10	13	6	10	4	0.383827	0.9900	NonOverlappingTemplate
8	15	5	6	9	18	6	7	6	20	0.001112	1.0000	NonOverlappingTemplate
6	14	7	12	9	12	5	9	12	14	0.383827	1.0000	NonOverlappingTemplate
11	8	6	7	9	13	10	13	10	13	0.759756	1.0000	NonOverlappingTemplate
9	7	13	8	12	12	14	10	8	7	0.739918	1.0000	NonOverlappingTemplate
7	15	8	14	5	15	17	10	5	4	0.010988	0.9900	NonOverlappingTemplate
6	7	11	15	12	11	12	7	9	10	0.637119	1.0000	NonOverlappingTemplate
8	13	12	8	14	11	8	8	7	11	0.779188	0.9900	NonOverlappingTemplate
8	10	7	10	9	9	7	8	16	16	0.350485	0.9900	NonOverlappingTemplate
7	13	7	10	11	16	10	8	10	8	0.616305	0.9900	NonOverlappingTemplate
10	12	13	4	14	9	13	6	9	10	0.419021	1.0000	NonOverlappingTemplate
11	7	12	11	11	9	10	9	10	10	0.994250	1.0000	NonOverlappingTemplate
11	11	7	8	7	10	6	13	14	13	0.595549	1.0000	NonOverlappingTemplate
6	10	21	13	6	17	10	3	10	4	0.000513	1.0000	NonOverlappingTemplate
9	11	7	15	7	11	13	6	11	10	0.616305	1.0000	NonOverlappingTemplate
7	15	16	10	9	11	8	8	11	5	0.304126	1.0000	NonOverlappingTemplate
9	6	13	10	14	10	11	8	11	8	0.816537	1.0000	NonOverlappingTemplate
9	9	5	9	11	9	14	15	11	8	0.574903	1.0000	NonOverlappingTemplate
11	12	10	6	11	12	9	10	12	7	0.911413	1.0000	NonOverlappingTemplate
8	15	9	8	10	13	3	14	9	11	0.275709	0.9900	NonOverlappingTemplate

7	9	16	12	13	6	6	9	12	10	0.383827	1.0000	NonOverlappingTemplate
12	9	8	6	11	7	6	10	15	16	0.262249	1.0000	NonOverlappingTemplate
4	8	8	11	7	12	15	12	9	14	0.319084	1.0000	NonOverlappingTemplate
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9	3	8	10	9	13	9	18	6	15	0.048716	1.0000	NonOverlappingTemplate
15	10	9	3	10	11	14	14	4	10	0.108791	1.0000	NonOverlappingTemplate
8	6	11	10	7	11	7	13	14	13	0.595549	1.0000	NonOverlappingTemplate
6	9	12	10	9	3	8	15	18	10	0.058984	1.0000	NonOverlappingTemplate
12	8	7	18	10	7	5	13	8	12	0.153763	0.9900	NonOverlappingTemplate
13	12	14	9	9	7	14	6	7	9	0.514124	1.0000	NonOverlappingTemplate
10	11	11	9	8	12	8	9	13	9	0.978072	1.0000	NonOverlappingTemplate
5	12	8	12	11	7	15	10	9	11	0.595549	1.0000	NonOverlappingTemplate
2	13	5	11	13	14	10	17	4	11	0.012650	1.0000	NonOverlappingTemplate
12	12	10	12	11	9	8	10	9	7	0.971699	0.9900	NonOverlappingTemplate
10	14	13	8	10	8	11	7	10	9	0.883171	1.0000	NonOverlappingTemplate
8	9	12	12	9	9	16	10	7	8	0.699313	1.0000	NonOverlappingTemplate
11	9	13	10	8	12	14	4	11	8	0.574903	1.0000	NonOverlappingTemplate
9	11	13	11	12	9	7	6	8	14	0.719747	0.9900	NonOverlappingTemplate
5	5	13	13	13	9	14	11	12	5	0.191687	1.0000	NonOverlappingTemplate
7	7	7	13	9	11	11	17	9	9	0.437274	1.0000	NonOverlappingTemplate
10	7	12	8	8	12	11	10	13	9	0.935716	0.9900	NonOverlappingTemplate
3	11	7	8	18	9	8	7	15	14	0.032923	1.0000	NonOverlappingTemplate
12	3	6	12	9	14	10	10	14	10	0.304126	1.0000	NonOverlappingTemplate
7	12	10	12	9	10	15	5	9	11	0.637119	1.0000	NonOverlappingTemplate
8	13	10	8	7	6	12	9	13	14	0.616305	1.0000	NonOverlappingTemplate
9	10	7	13	6	13	10	8	10	14	0.699313	1.0000	NonOverlappingTemplate
9	12	15	9	13	10	13	5	8	6	0.401199	1.0000	NonOverlappingTemplate
11	11	11	10	10	6	11	4	14	12	0.574903	1.0000	NonOverlappingTemplate
14	13	8	11	12	6	10	9	12	5	0.534146	0.9900	NonOverlappingTemplate
8	9	8	14	14	6	8	15	7	11	0.383827	1.0000	NonOverlappingTemplate
11	9	5	10	9	12	13	10	16	5	0.334538	1.0000	NonOverlappingTemplate
12	9	11	11	13	10	7	7	13	7	0.816537	1.0000	NonOverlappingTemplate
9	6	10	8	15	5	11	19	6	11	0.048716	1.0000	NonOverlappingTemplate
7	11	12	9	14	12	12	7	7	9	0.759756	1.0000	NonOverlappingTemplate
8	9	11	13	11	8	10	9	10	11	0.987896	1.0000	NonOverlappingTemplate
10	12	8	10	13	10	10	6	13	8	0.867692	1.0000	NonOverlappingTemplate
7	8	14	9	14	7	6	14	11	10	0.455937	0.9900	NonOverlappingTemplate
10	6	8	9	8	18	17	10	6		0.071177	1.0000	NonOverlappingTemplate
10	8	10	8	12	12	7	10	9	14	0.897763	0.9900	NonOverlappingTemplate
9	12	7	7	10	10	13	14	8	10	0.816537	1.0000	NonOverlappingTemplate
10	9	16	10	10	6	10	8	8	13	0.637119	1.0000	NonOverlappingTemplate
9	10	12	9	12	11	9	11	9	8	0.994250	1.0000	NonOverlappingTemplate
7	4	9	10	13	7	13	13	11	13	0.419021	1.0000	NonOverlappingTemplate

12	13	11	8	8	12	3	16	9	8	0.236810	1.0000	NonOverlappingTemplate
14	11	7	6	10	11	13	12	7	9	0.678686	1.0000	OverlappingTemplate
17	13	6	14	12	4	8	9	10	7	0.108791	0.9900	Universal
5	7	13	8	11	12	14	11	9	10	0.637119	1.0000	ApproximateEntropy
1	6	9	6	7	6	5	6	8	6	0.671779	1.0000	RandomExcursions
9	5	6	3	8	6	6	4	5	8	0.804337	1.0000	RandomExcursions
3	5	5	13	4	4	10	5	4	7	0.090936	1.0000	RandomExcursions
7	2	8	4	3	6	12	3	7	8	0.122325	1.0000	RandomExcursions
4	4	9	7	11	5	5	6	3	6	0.437274	1.0000	RandomExcursions
6	3	8	9	9	9	6	2	4	4	0.299251	1.0000	RandomExcursions
6	11	6	4	4	3	4	6	7	9	0.407091	1.0000	RandomExcursions
5	9	4	5	5	6	4	7	10	5	0.706149	1.0000	RandomExcursions
5	7	7	3	6	4	10	6	6	6	0.804337	1.0000	RandomExcursionsVariant
4	5	8	8	1	5	6	8	9	6	0.468595	1.0000	RandomExcursionsVariant
4	5	7	4	7	5	9	6	6	7	0.931952	1.0000	RandomExcursionsVariant
4	3	3	7	8	6	13	8	2	6	0.066882	1.0000	RandomExcursionsVariant
5	2	6	5	2	9	7	11	3	10	0.074177	1.0000	RandomExcursionsVariant
3	5	4	3	3	4	10	9	11	8	0.090936	1.0000	RandomExcursionsVariant
3	2	5	5	4	4	7	13	6	11	0.031497	1.0000	RandomExcursionsVariant
3	4	1	5	9	7	5	5	8	13	0.043745	1.0000	RandomExcursionsVariant
4	5	8	5	5	5	2	11	9	6	0.324180	1.0000	RandomExcursionsVariant
1	6	8	7	5	6	6	8	4	9	0.534146	1.0000	RandomExcursionsVariant
9	4	3	6	6	7	6	5	8	6	0.862344	1.0000	RandomExcursionsVariant
7	8	7	3	6	8	6	6	5	4	0.911413	1.0000	RandomExcursionsVariant
6	9	6	4	9	9	7	2	4	4	0.407091	1.0000	RandomExcursionsVariant
3	13	4	5	4	4	8	5	7	7	0.162606	1.0000	RandomExcursionsVariant
6	7	7	4	4	0	9	5	7	11	0.134686	1.0000	RandomExcursionsVariant
7	6	7	4	2	5	8	6	7	8	0.804337	1.0000	RandomExcursionsVariant
8	5	5	5	7	3	4	9	7	7	0.804337	1.0000	RandomExcursionsVariant
6	3	10	4	4	9	4	8	6	6	0.500934	1.0000	RandomExcursionsVariant
11	12	13	8	9	6	7	11	9	14	0.719747	1.0000	Serial
13	6	12	13	5	9	13	9	8	12	0.514124	1.0000	Serial
11	10	8	11	13	11	7	11	7	11	0.935716	1.0000	LinearComplexity

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The minimum pass rate for each statistical test with the exception of the
random excursion (variant) test is approximately = 0.989518 for a
sample size = 100 binary sequences.

The minimum pass rate for the random excursion (variant) test
is approximately 0.986759 for a sample size = 60 binary sequences.

For further guidelines construct a probability table using the MAPLE program
provided in the addendum section of the documentation.
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Alle Testverfahren wurden erfolgreich bestanden.