Савватеев Андрей

Соловьев Михаил

Звонкина Ольга

1. Table 1. Three destruction spectra.

| i | M=1000 | M=10000 | M=50000 |
|---|---|---|---|
| 1 | 0 | 0 | 0 |
| 2 | 0 | 0 | 0 |
| 3 | 0.003 | 0.0005 | 0.0007 |
| 4 | 0.002 | 0.0034 | 0.00252 |
| 5 | 0.005 | 0.0061 | 0.00562 |
| 6 | 0.013 | 0.0133 | 0.01248 |
| 7 | 0.019 | 0.0199 | 0.02182 |
| 8 | 0.033 | 0.0377 | 0.03818 |
| 9 | 0.079 | 0.066 | 0.06502 |
| 10 | 0.083 | 0.0994 | 0.10252 |
| 11 | 0.152 | 0.1355 | 0.13938 |
| 12 | 0.146 | 0.1653 | 0.15834 |
| 13 | 0.151 | 0.1464 | 0.1538 |
| 14 | 0.11 | 0.1205 | 0.11816 |
| 15 | 0.081 | 0.0823 | 0.07954 |
| 16 | 0.063 | 0.0487 | 0.04874 |
| 17 | 0.035 | 0.0262 | 0.02762 |
| 18 | 0.014 | 0.0161 | 0.01426 |
| 19 | 0.008 | 0.0083 | 0.0069 |
| 20 | 0.003 | 0.0028 | 0.00282 |
| 21 | 0 | 0.001 | 0.00114 |
| 22 | 0 | 0.0004 | 0.00036 |
| 23 | 0 | 0.0001 | 0.00006 |
| 24 | 0 | 0.0001 | 0.00002 |
| 25 | 0 | 0 | 0 |
| 26 | 0 | 0 | 0 |
| 27 | 0 | 0 | 0 |
| 28 | 0 | 0 | 0 |
| 29 | 0 | 0 | 0 |
| 30 | 0 | 0 | 0 |

2. Table 2. Network reliability based on destruction spectra.

| p | M=1000 | M=10000 | M=50000 |
|---|---|---|---|
| 0.1 | 0 | 0.000005 | 0.000003 |
| 0.2 | 0.000248 | 0.000417 | 0.000362 |
| 0.3 | 0.006609 | 0.007011 | 0.006615 |
| 0.4 | 0.051716 | 0.049649 | 0.048198 |
| 0.5 | 0.201098 | 0.194235 | 0.191521 |
| 0.6 | 0.478714 | 0.472495 | 0.469663 |
| 0.7 | 0.776186 | 0.773891 | 0.772677 |
| 0.8 | 0.947746 | 0.947353 | 0.947774 |
| 0.9 | 0.994739 | 0.995462 | 0.995746 |
| 0.95 | 0.999179 | 0.999545 | 0.99957 |
| 0.99 | 0.99999 | 0.999998 | 0.999997 |

3. Table 3. Network reliability using crude Monte Carlo.

| p | M=1000 | M=10000 | M=50000 |
|---|---|---|---|
| 0.1 | 0 | 0 | 0 |
| 0.2 | 0 | 0.0007 | 0.0005 |
| 0.3 | 0.006 | 0.0069 | 0.00664 |
| 0.4 | 0.054 | 0.0501 | 0.0483 |
| 0.5 | 0.195 | 0.1952 | 0.1934 |
| 0.6 | 0.472 | 0.4755 | 0.46984 |
| 0.7 | 0.755 | 0.7715 | 0.77466 |
| 0.8 | 0.948 | 0.9472 | 0.94876 |
| 0.9 | 0.994 | 0.9962 | 0.9958 |
| 0.95 | 1 | 0.9996 | 0.99956 |
| 0.99 | 1 | 1 | 1 |

4. Table 4. Ten calculations and relative standard deviation.

| i | Spectrum | CMC |
|---|---|---|
| 1 | 0.999396 | 0.998 |
| 2 | 0.999829 | 0.999 |
| 3 | 0.999502 | 1 |
| 4 | 0.999421 | 0.999 |
| 5 | 0.999643 | 1 |
| 6 | 0.999805 | 1 |
| 7 | 0.999528 | 1 |
| 8 | 0.999737 | 0.999 |
| 9 | 0.999742 | 1 |
| 10 | 0.999479 | 1 |
| r.e. | 0.000162 | 0.000707 |