Table 1

Mean (standard deviation) of MSE for sigma = 0.1.

| Case | k | n | SPCR | aSPCR |
|------|---|---|------|-------|
| 1(a) | 1 | 50 | 0.16 | 0.11 |
|  |  |  | (0.54) | (0.12) |
|  |  | 200 | 0.14 | 0.03 |
|  |  |  | (0.72) | (0.03) |
|  | 10 | 50 | 0.11 | 0.11 |
|  |  |  | (0.12) | (0.12) |
|  |  | 200 | 0.08 | 0.03 |
|  |  |  | (0.51) | (0.03) |
| 1(b) | 1 | 50 | 1.19 | 1.18 |
|  |  |  | (1.34) | (1.34) |
|  |  | 200 | 0.33 | 0.33 |
|  |  |  | (0.44) | (0.44) |
|  | 10 | 50 | 1.18 | 1.91 |
|  |  |  | (1.35) | (7.39) |
|  |  | 200 | 0.33 | 0.33 |
|  |  |  | (0.43) | (0.44) |
| 2 | 1 | 50 | 0.35 | 0.35 |
|  |  |  | (0.49) | (0.49) |
|  |  | 200 | 0.14 | 0.14 |
|  |  |  | (0.17) | (0.17) |
|  | 10 | 50 | 0.35 | 0.35 |
|  |  |  | (0.49) | (0.49) |
|  |  | 200 | 0.13 | 0.13 |
|  |  |  | (0.17) | (0.17) |
| 3(a) | 1 | 50 | 467 | 464 |
|  |  |  | (99) | (104) |
|  |  | 200 | 477 | 460 |
|  |  |  | (22) | (82) |
|  | 10 | 50 | 11 | 11 |
|  |  |  | (13) | (13) |
|  |  | 200 | 2.57 | 2.58 |
|  |  |  | (3.88) | (3.88) |
| 3(b) | 1 | 50 | 13 | 13 |
|  |  |  | (0.69) | (0.69) |
|  |  | 200 | 13 | 13 |
|  |  |  | (0.60) | (0.60) |
|  | 10 | 50 | 0.23 | 0.23 |
|  |  |  | (0.29) | (0.29) |
|  |  | 200 | 0.06 | 0.07 |
|  |  |  | (0.06) | (0.06) |

Table 2

Mean (standard deviation) of MSE for sigma = 1.

| Case | k | n | SPCR | aSPCR |
|---|---|---|---|---|
| 1(a) | 1 | 50 | 1.08 | 0.45 |
| | | | (1.78) | (1.08) |
| | | 200 | 2.39 | 0.06 |
| | | | (2.48) | (0.05) |
| | 10 | 50 | 0.36 | 0.22 |
| | | | (0.55) | (0.19) |
| | | 200 | 0.51 | 0.11 |
| | | | (1.42) | (0.50) |
| 1(b) | 1 | 50 | 1.49 | 1.38 |
| | | | (1.48) | (1.48) |
| | | 200 | 0.39 | 0.36 |
| | | | (0.45) | (0.45) |
| | 10 | 50 | 2.09 | 1.29 |
| | | | (7.47) | (1.47) |
| | | 200 | 0.36 | 0.35 |
| | | | (0.45) | (0.45) |
| 2 | 1 | 50 | 0.89 | 0.59 |
| | | | (0.57) | (0.53) |
| | | 200 | 0.24 | 0.18 |
| | | | (0.19) | (0.19) |
| | 10 | 50 | 0.88 | 0.59 |
| | | | (0.57) | (0.54) |
| | | 200 | 0.23 | 0.18 |
| | | | (0.19) | (0.19) |
| 3(a) | 1 | 50 | 467 | 464 |
| | | | (99) | (104) |
| | | 200 | 477 | 460 |
| | | | (22) | (82) |
| | 10 | 50 | 11 | 11 |
| | | | (13) | (13) |
| | | 200 | 2.65 | 2.59 |
| | | | (3.83) | (3.83) |
| 3(b) | 1 | 50 | 13 | 13 |
| | | | (0.71) | (0.71) |
| | | 200 | 13 | 13 |
| | | | (0.60) | (0.60) |
| | 10 | 50 | 0.79 | 0.41 |
| | | | (0.43) | (0.34) |
| | | 200 | 0.16 | 0.11 |
| | | | (0.09) | (0.08) |

Table 3

Mean (standard deviation) of TPR and TNP for sigma = 0.1.

| Case | k | n | TPR | | TNR | |
|------|---|---|-----|-----|-----|-----|
|      |   |   | SPCR | aSPCR | SPCR | aSPCR |
| 1(a) | 1 | 50 | 1 | 1 | 0.67 | 1 |
|      |   |   | (0.1) | (0) | (0.21) | (0) |
|      |   | 200 | 0.98 | 1 | 0.86 | 1 |
|      |   |   | (0.14) | (0) | (0.16) | (0) |
|      | 10 | 50 | 1 | 1 | 0.54 | 0.75 |
|      |   |   | (0) | (0) | (0.24) | (0.35) |
|      |   | 200 | 0.99 | 1 | 0.66 | 0.51 |
|      |   |   | (0.1) | (0) | (0.25) | (0.26) |
| 1(b) | 1 | 50 | 1 | 1 | 0.07 | 1 |
|      |   |   | (0) | (0) | (0.13) | (0) |
|      |   | 200 | 1 | 1 | 0.05 | 1 |
|      |   |   | (0) | (0) | (0.08) | (0) |
|      | 10 | 50 | 1 | 0.99 | 0.61 | 0.84 |
|      |   |   | (0) | (0.05) | (0.27) | (0.32) |
|      |   | 200 | 1 | 1 | 0.77 | 0.76 |
|      |   |   | (0) | (0) | (0.2) | (0.31) |
| 2 | 1 | 50 | 1 | 1 | 0.26 | 1 |
|      |   |   | (0) | (0) | (0.11) | (0) |
|      |   | 200 | 1 | 1 | 0.36 | 1 |
|      |   |   | (0) | (0) | (0.13) | (0) |
|      | 10 | 50 | 1 | 1 | 0.32 | 0.68 |
|      |   |   | (0) | (0) | (0.14) | (0.11) |
|      |   | 200 | 1 | 1 | 0.43 | 0.77 |
|      |   |   | (0) | (0) | (0.2) | (0.09) |
| 3(a) | 1 | 50 | 0.02 | 0.02 | 1 | 1 |
|      |   |   | (0.09) | (0.09) | (0) | (0) |
|      |   | 200 | 1 | 0.003 | 1 | 1 |
|      |   |   | (0) | (0.016) | (0) | (0) |
|      | 10 | 50 | 1 | 1 | 0.52 | 0.9 |
|      |   |   | (0) | (0) | (0.14) | (0.15) |
|      |   | 200 | 1 | 1 | 0.68 | 0.86 |
|      |   |   | (0) | (0) | (0.14) | (0.11) |
| 3(b) | 1 | 50 | 1 | 1 | 1 | 1 |
|      |   |   | (0) | (0) | (0) | (0) |
|      |   | 200 | 1 | 1 | 1 | 1 |
|      |   |   | (0) | (0) | (0) | (0) |
|      | 10 | 50 | 1 | 1 | 0.44 | 0.85 |
|      |   |   | (0) | (0) | (0.12) | (0.12) |
|      |   | 200 | 1 | 1 | 0.57 | 0.91 |
|      |   |   | (0) | (0) | (0.17) | (0.08) |

Table 4

Mean (standard deviation) of TPR and TNP for sigma = 1.

| Case | k | n | TPR | | TNR | |
|---|---|---|---|---|---|---|
| | | | SPCR | aSPCR | SPCR | aSPCR |
| 1(a) | 1 | 50 | 0.84 | 0.95 | 0.37 | 0.91 |
| | | | (0.36) | (0.21) | (0.31) | (014) |
| | | 200 | 0.53 | 1 | 0.66 | 0.94 |
| | | | (0.5) | (0) | (0.34) | (0.13) |
| | 10 | 50 | 0.99 | 1 | 0.275 | 0.88 |
| | | | (0.1) | (0) | (0.2) | (0.22) |
| | | 200 | 0.91 | 0.99 | 0.45 | 0.9 |
| | | | (0.28) | (0.1) | (0.26) | (0.21) |
| 1(b) | 1 | 50 | 1 | 1 | 0.008 | 0.56 |
| | | | (0) | (0) | (0.03) | (0.19) |
| | | 200 | 1 | 1 | 0.006 | 0.78 |
| | | | (0) | (0) | (0.03) | (0.16) |
| | 10 | 50 | 0.99 | 1 | 0.55 | 0.93 |
| | | | (0.05) | (0) | (0.26) | (0.18) |
| | | 200 | 1 | 1 | 0.64 | 0.92 |
| | | | (0) | (0) | (0.25) | (0.25) |
| 2 | 1 | 50 | 1 | 1 | 0.18 | 0.89 |
| | | | (0) | (0) | (0.11) | (0.13) |
| | | 200 | 1 | 1 | 0.21 | 0.94 |
| | | | (0) | (0) | (0.13) | (0.1) |
| | 10 | 50 | 1 | 1 | 0.21 | 0.88 |
| | | | (0) | (0) | (0.12) | (0.17) |
| | | 200 | 1 | 1 | 0.22 | 0.92 |
| | | | (0) | (0) | (0.15) | (0.15) |
| 3(a) | 1 | 50 | 0.02 | 0.02 | 0.97 | 1 |
| | | | (0.098) | (0.09) | (0.13) | (0) |
| | | 200 | 1 | 0.003 | 1 | 1 |
| | | | (0) | (0.016) | (0) | (0) |
| | 10 | 50 | 1 | 1 | 0.24 | 0.96 |
| | | | (0) | (0) | (0.05) | (0.09) |
| | | 200 | 1 | 1 | 0.3 | 0.95 |
| | | | (0) | (0) | (0.071) | (0.12) |
| 3(b) | 1 | 50 | 1 | 1 | 1 | 1 |
| | | | (0) | (0) | (0) | (0) |
| | | 200 | 1 | 1 | 1 | 1 |
| | | | (0) | (0) | (0) | (0) |
| | 10 | 50 | 1 | 1 | 1 | 0.97 |
| | | | (0) | (0) | (0.07) | (0.06) |
| | | 200 | 1 | 1 | 0.35 | 0.96 |
| | | | (0) | (0) | (0.1) | (0.1) |

Table 6

Mean (standard deviation) of MSE for real datasets.

| | Energy1 | Energy2 | Forest | Concrete | Communities1 | Communities2 |
|---|---|---|---|---|---|---|
| SPCR | 9.4e+0 | 1.1e+1 | 3.9e+3 | 1.2e+2 | 2.4e-2 | 2.3e-2 |
| | (6.4e-1) | (5.5e-1) | (1.2e+3) | (1.6e+1) | (4.2e-3) | (6.1e-3) |
| aSPCR | 1.1e+1 | 1.1e+1 | 3.9e+3 | 1.2e+2 | 3.2e-2 | 3.5e-2 |
| | (5.5e-1) | (5.4e+1) | (1.1e+3) | (1.2e+1) | (1.0e-2) | (1.1e-2) |