2.1

$$\sigma(M) := \frac{2^{-2M}}{12} \qquad i := 0..2 \quad j := 0..3$$

$$M := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix} \qquad b1 := \begin{pmatrix} -0.5 \\ -0.7 \\ -0.95 \\ -0.99 \end{pmatrix}$$

[redacted]

$$Teor_{i,j} := \frac{\sigma(M_i)}{1 - (b1_j)^2}$$

Teor =

	0	1	2	3
0	0.0017361	0.0025531	0.0133547	0.0654313
1	0.0001085	0.0001596	0.0008347	0.0040895
2	0.0000017	0.0000025	0.000013	0.0000639

2.2

$$M := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix} \qquad r := \begin{pmatrix} 0.5 \\ 0.7 \\ 0.95 \\ 0.99 \end{pmatrix}$$

[redacted]

$$Teor_{i,j} := \frac{\sigma(M_i)\left[1 + (r_j)^2\right]}{\left[1 - (r_j)^2\right]\cdot\left[(r_j)^2 + 1 - 2\cdot(r_j)^2\cdot\cos(1)\right]}$$

Teor =

	0	1	2	3
0	0.0022148	0.0039606	0.0274006	0.1406739
1	0.0001384	0.0002475	0.0017125	0.0087921
2	0.0000022	0.0000039	0.0000268	0.0001374

2.3

$$M := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix} \qquad b1 := \begin{pmatrix} -0.5 \\ -0.7 \\ -0.95 \\ -0.99 \end{pmatrix}$$

[redacted]

$$M := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix} \qquad r := \begin{pmatrix} 0.5 \\ 0.7 \\ 0.95 \\ 0.99 \end{pmatrix}$$

[redacted]

$$\sigma(M) := \frac{2^{-2M}}{3} \qquad i := 0..2 \quad j := 0..3$$

$$Teor_{i,j} := \frac{\sigma(M_i)}{1 - (b1_j)^2}$$

2.4

$$M := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix} \qquad b1 := \begin{pmatrix} -0.5 \\ -0.7 \\ -0.95 \\ -0.99 \end{pmatrix}$$

[redacted]

0	0.0069444	0.0102124	0.0534188	0.2617253
1	0.000434	0.0006383	0.0033387	0.0163578
2	0.0000068	0.00001	0.0000522	0.0002556

Teor =

$$M := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix} \qquad r := \begin{pmatrix} 0.5 \\ 0.7 \\ 0.95 \\ 0.99 \end{pmatrix}$$

[redacted]

$$Teor_{i,j} := \frac{\sigma(M_i)\left[1 + (r_j)^2\right]}{\left[1 - (r_j)^2\right]\cdot\left[(r_j)^2 + 1 - 2\cdot(r_j)^2\cdot\cos(1)\right]}$$

Teor =

	0	1	2	3
0	0.0088591	0.0158422	0.1096024	0.5626955
1	0.0005537	0.0009901	0.0068501	0.0351685
2	0.0000087	0.0000155	0.000107	0.0005495

$$M := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix} \qquad b1 := \begin{pmatrix} -0.5 \\ -0.7 \\ -0.95 \\ -0.99 \end{pmatrix}$$

[redacted]

$$M := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix} \qquad r := \begin{pmatrix} 0.5 \\ 0.7 \\ 0.95 \\ 0.99 \end{pmatrix}$$

[redacted]

$$\sigma(M) := \frac{2^{-2M}}{12} \qquad i := 0..2 \quad j := 0..3$$

$$Teor_{i,j} := \frac{\sigma(M_i)}{1 - (b1_j)^2}$$

3.1

$$M := \begin{pmatrix} 5 \\ 8 \\ 12 \end{pmatrix} \qquad b1 := \begin{pmatrix} -0.5 \\ -0.7 \\ -0.95 \\ -0.99 \end{pmatrix}$$

[redacted]

Teor =

	0	1	2	3
0	0.0017361	0.0025531	0.0133547	0.0654313
1	0.0001085	0.0001596	0.0008347	0.0040895

2	0.0000017	0.0000025	0.000013	0.0000639

3.2

$$M := \begin{pmatrix} 5 \\ 8 \\ 12 \end{pmatrix} \qquad r := \begin{pmatrix} 0.5 \\ 0.7 \\ 0.95 \\ 0.99 \end{pmatrix}$$

[redacted]

$$Teor_{i,j} := \frac{\sigma(M_i)\left[1 + (r_j)^2\right]}{\left[1 - (r_j)^2\right]\cdot\left[(r_j)^2 + 1 - 2\cdot(r_j)^2\cdot\cos(1)\right]}$$

Teor =

	0	1	2	3
0	0.0001384	0.0002475	0.0017125	0.0087921
1	0.0000022	0.0000039	0.0000268	0.0001374
2	0	0	0.0000001	0.0000005

3.3

$$M := \begin{pmatrix} 5 \\ 8 \\ 12 \end{pmatrix} \qquad b1 := \begin{pmatrix} -0.5 \\ -0.7 \\ -0.95 \\ -0.99 \end{pmatrix}$$

[redacted]

$$M := \begin{pmatrix} 5 \\ 8 \\ 12 \end{pmatrix} \qquad r := \begin{pmatrix} 0.5 \\ 0.7 \\ 0.95 \\ 0.99 \end{pmatrix}$$

[redacted]

$$\sigma(M) := \frac{2^{-2M}}{3} \qquad i := 0..2 \quad j := 0..3$$

$$Teor_{i,j} := \frac{\sigma(M_i)}{1 - (b1_j)^2}$$

3.4

$$M := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix} \qquad b1 := \begin{pmatrix} -0.5 \\ -0.7 \\ -0.95 \\ -0.99 \end{pmatrix}$$

[redacted]

Teor =

	0	1	2	3
0	0.000434	0.0006383	0.0033387	0.0163578
1	0.0000068	0.00001	0.0000522	0.0002556
2	0	0	0.0000002	0.000001

$$M := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix} \qquad r := \begin{pmatrix} 0.5 \\ 0.7 \\ 0.95 \\ 0.99 \end{pmatrix}$$

[redacted]

$$Teor_{i,j} := \frac{\sigma\left(M_i\right)\cdot\left[1 + \left(r_j\right)^2\right]}{\left[1 - \left(r_j\right)^2\right]\cdot\left[\left(r_j\right)^2 + 1 - 2\cdot\left(r_j\right)^2\cdot\cos(1)\right]}$$

Teor =

	0	1	2	3
0	0.0088591	0.0158422	0.1096024	0.5626955
1	0.0005537	0.0009901	0.0068501	0.0351685
2	0.0000087	0.0000155	0.000107	0.0005495

$$M := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix} \qquad b1 := \begin{pmatrix} -0.5 \\ -0.7 \\ -0.95 \\ -0.99 \end{pmatrix}$$

[redacted]

$$M := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix} \qquad r := \begin{pmatrix} 0.5 \\ 0.7 \\ 0.95 \\ 0.99 \end{pmatrix}$$

[redacted]

$$\sigma(M) := \frac{2^{-2M}}{12} \qquad i := 0..2 \quad j := 0..3$$

$$Teor_{i,j} := \frac{\sigma\left(M_i\right)}{1 - \left(b1_j\right)^2} \qquad SNR_{i,j} := 10\cdot\log\left(\frac{0.5}{Teor_{i,j}}\right)$$

4.1

$$M := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix} \qquad b1 := \begin{pmatrix} -0.5 \\ -0.7 \\ -0.95 \\ -0.99 \end{pmatrix}$$

[redacted]

$$SNR = \begin{pmatrix} 24.594 & 22.919 & 15.733 & 8.832 \\ 36.635 & 34.96 & 27.775 & 20.873 \\ 54.697 & 53.022 & 45.836 & 38.935 \end{pmatrix}$$

$$Teor_{i,j} := \frac{\sigma(M_i)\left[1 + (r_j)^2\right]}{\left[1 - (r_j)^2\right]\cdot\left[(r_j)^2 + 1 - 2\cdot(r_j)^2\cdot\cos(1)\right]}$$

4.2

$$SNR_{i,j} := 10\cdot\log\left(\frac{0.5}{Teor_{i,j}}\right)$$

$$M := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix} \qquad r := \begin{pmatrix} 0.5 \\ 0.7 \\ 0.95 \\ 0.99 \end{pmatrix}$$

[redacted]

$$SNR = \begin{pmatrix} 23.536 & 21.012 & 12.612 & 5.508 \\ 35.578 & 33.053 & 24.653 & 17.549 \\ 53.639 & 51.115 & 42.715 & 35.611 \end{pmatrix}$$

$$\sigma(M) := \frac{2^{-2M}}{3}$$

$$Teor_{i,j} := \frac{\sigma(M_i)}{1 - (b1_j)^2}$$

4.3

$$M := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix} \qquad b1 := \begin{pmatrix} -0.5 \\ -0.7 \\ -0.95 \\ -0.99 \end{pmatrix}$$

[redacted]

$$SNR_{i,j} := 10\cdot\log\left(\frac{0.5}{Teor_{i,j}}\right)$$

$$SNR = \begin{pmatrix} 18.573 & 16.898 & 9.713 & 2.811 \\ 30.615 & 28.94 & 21.754 & 14.852 \\ 48.676 & 47.001 & 39.816 & 32.914 \end{pmatrix}$$

$$Teor_{i,j} := \frac{\sigma(M_i)\left[1 + (r_j)^2\right]}{\left[1 - (r_j)^2\right]\cdot\left[(r_j)^2 + 1 - 2\cdot(r_j)^2\cdot\cos(1)\right]}$$

$$M := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix} \qquad r := \begin{pmatrix} 0.5 \\ 0.7 \\ 0.95 \\ 0.99 \end{pmatrix}$$

[redacted]

$$SNR_{i,j} := 10\cdot\log\left(\frac{0.5}{Teor_{i,j}}\right)$$

$$SNR = \begin{pmatrix} 17.516 & 14.992 & 6.592 & -0.513 \\ 29.557 & 27.033 & 18.633 & 11.528 \\ 47.619 & 45.095 & 36.695 & 29.59 \end{pmatrix}$$

$$\sigma(M) := \frac{2^{-2M}}{12} \qquad i := 0..2 \quad j := 0..3$$

$$Teor_{i,j} := \frac{\sigma(M_i)}{1 - (b1_j)^2} \qquad SNR_{i,j} := 10\cdot\log\left(\frac{0.5}{Teor_{i,j}}\right)$$

4.4

$$M := \begin{pmatrix} 5 \\ 8 \\ 12 \end{pmatrix} \qquad b1 := \begin{pmatrix} -0.5 \\ -0.7 \\ -0.95 \\ -0.99 \end{pmatrix}$$

[redacted]

$$SNR = \begin{pmatrix} 24.594 & 22.919 & 15.733 & 8.832 \\ 36.635 & 34.96 & 27.775 & 20.873 \end{pmatrix}$$

$$Teor_{i,j} := \frac{\sigma(M_i)\left[1 + (r_j)^2\right]}{\left[1 - (r_j)^2\right]\cdot\left[(r_j)^2 + 1 - 2\cdot(r_j)^2\cdot\cos(1)\right]}$$

4.5

$$SNR_{i,j} := 10\cdot\log\left(\frac{0.5}{Teor_{i,j}}\right)$$

$$M := \begin{pmatrix} 5 \\ 8 \\ 12 \end{pmatrix} \qquad r := \begin{pmatrix} 0.5 \\ 0.7 \\ 0.95 \\ 0.99 \end{pmatrix}$$

[redacted]

$$\sigma(M) := \frac{2^{-2M}}{3}$$

$$SNR = \begin{pmatrix} 35.578 & 33.053 & 24.653 & 17.549 \\ 53.639 & 51.115 & 42.715 & 35.611 \\ 77.722 & 75.198 & 66.797 & 59.693 \end{pmatrix}$$

$$Teor_{i,j} := \frac{\sigma(M_i)}{1-\left(b1_j\right)^2} \qquad SNR_{i,j} := 10\cdot\log\left(\frac{0.5}{Teor_{i,j}}\right)$$

4.6

$$M := \begin{pmatrix} 5 \\ 8 \\ 12 \end{pmatrix} \qquad b1 := \begin{pmatrix} -0.5 \\ -0.7 \\ -0.95 \\ -0.99 \end{pmatrix}$$

[redacted]

$$SNR = \begin{pmatrix} 30.615 & 28.94 & 21.754 & 14.852 \\ 48.676 & 47.001 & 39.816 & 32.914 \\ 72.759 & 71.084 & 63.898 & 56.997 \end{pmatrix}$$

$$Teor_{i,j} := \frac{\sigma(M_i)\left[1+\left(r_j\right)^2\right]}{\left[1-\left(r_j\right)^2\right]\cdot\left[\left(r_j\right)^2+1-2\cdot\left(r_j\right)^2\cdot\cos(1)\right]}$$

$$M := \begin{pmatrix} 5 \\ 8 \\ 12 \end{pmatrix} \qquad r := \begin{pmatrix} 0.5 \\ 0.7 \\ 0.95 \\ 0.99 \end{pmatrix}$$

[redacted]

$$SNR_{i,j} := 10\cdot\log\left(\frac{0.5}{Teor_{i,j}}\right)$$

$$SNR = \begin{pmatrix} 29.557 & 27.033 & 18.633 & 11.528 \\ 47.619 & 45.095 & 36.695 & 29.59 \\ 71.701 & 69.177 & 60.777 & 53.672 \end{pmatrix}$$

4.7

$M1 := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix}$ $M2 := \begin{pmatrix} 5 \\ 8 \\ 12 \end{pmatrix}$ $b1 := \begin{pmatrix} -0.5 \\ -0.7 \\ -0.95 \\ -0.99 \end{pmatrix}$ [redacted] $\sigma(M) := \frac{2^{-2M}}{12}$ $i := 0..2$ $j := 0..3$

$Teor_{i,j} := \frac{\sigma(M1_i) + \sigma(M2_i)}{1 - (b1_j)^2}$ $SNR_{i,j} := 10 \cdot \log\left(\frac{0.5}{Teor_{i,j}}\right)$

$$SNR = \begin{pmatrix} 29.557 & 27.033 & 18.633 & 11.528 \\ 47.619 & 45.095 & 36.695 & 29.59 \\ 71.701 & 69.177 & 60.777 & 53.672 \end{pmatrix}$$

$$Teor_{i,j} := \frac{(\sigma(M1_i) + \sigma(M2_i))\left[1 + (r_j)^2\right]}{\left[1 - (r_j)^2\right] \cdot \left[(r_j)^2 + 1 - 2 \cdot (r_j)^2 \cdot \cos(1)\right]}$$

4.8

$M1 := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix}$ $M2 := \begin{pmatrix} 5 \\ 8 \\ 12 \end{pmatrix}$ $r := \begin{pmatrix} 0.5 \\ 0.7 \\ 0.95 \\ 0.99 \end{pmatrix}$ [redacted] $SNR_{i,j} := 10 \cdot \log\left(\frac{0.5}{Teor_{i,j}}\right)$

$$SNR = \begin{pmatrix} 23.273 & 20.749 & 12.349 & 5.244 \\ 35.51 & 32.986 & 24.586 & 17.481 \\ 53.622 & 51.098 & 42.698 & 35.594 \end{pmatrix}$$

$\sigma(M) := \frac{2^{-2M}}{3}$ $Teor_{i,j} := \frac{\sigma(M1_i) + \sigma(M2_i)}{1 - (b1_j)^2}$

4.9

$M1 := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix}$ $M2 := \begin{pmatrix} 5 \\ 8 \\ 12 \end{pmatrix}$ $b1 := \begin{pmatrix} -0.5 \\ -0.7 \\ -0.95 \\ -0.99 \end{pmatrix}$ [redacted] $SNR_{i,j} := 10 \cdot \log\left(\frac{0.5}{Teor_{i,j}}\right)$

$$SNR = \begin{pmatrix} 18.31 & 16.635 & 9.449 & 2.548 \\ 30.547 & 28.872 & 21.687 & 14.785 \\ 48.659 & 46.984 & 39.799 & 32.897 \end{pmatrix}$$

$$Teor_{i,j} := \frac{(\sigma(M1_i) + \sigma(M2_i))\left[1 + (r_j)^2\right]}{\left[1 - (r_j)^2\right] \cdot \left[(r_j)^2 + 1 - 2 \cdot (r_j)^2 \cdot \cos(1)\right]}$$

$M1 := \begin{pmatrix} 3 \\ 5 \\ 8 \end{pmatrix}$ $M2 := \begin{pmatrix} 5 \\ 8 \\ 12 \end{pmatrix}$ $r := \begin{pmatrix} 0.5 \\ 0.7 \\ 0.95 \\ 0.99 \end{pmatrix}$ [redacted] $SNR_{i,j} := 10 \cdot \log\left(\frac{0.5}{Teor_{i,j}}\right)$

$$SNR = \begin{pmatrix} 17.253 & 14.728 & 6.328 & -0.776 \\ 29.49 & 26.965 & 18.565 & 11.461 \\ 47.602 & 45.078 & 36.678 & 29.573 \end{pmatrix}$$

5.1

$i := 0..2$ $j := 0..3$

$M := \begin{pmatrix} 5 \\ 8 \\ 12 \end{pmatrix}$ $b1 := \begin{pmatrix} -0.5 \\ -0.7 \\ -0.95 \\ -0.99 \end{pmatrix}$ $y(-1) = 0.7$ [redacted]

$$Teor_{i,j} := \frac{2^{-M_i}}{1 - |b1_j|}$$

$$Teor = \begin{pmatrix} 0.063 & 0.104 & 0.625 & 3.125 \\ 0.008 & 0.013 & 0.078 & 0.391 \\ 0 & 0.001 & 0.005 & 0.024 \end{pmatrix}$$

$$Teor_{i,j} := \frac{\left(\sigma(M1_i) + \sigma(M2_i)\right)\left[1 + (r_j)^2\right]}{\left[1 - (r_j)^2\right]\cdot\left[(r_j)^2 + 1 - 2\cdot(r_j)^2\cdot\cos(1)\right]}$$

$M := \begin{pmatrix} 5 \\ 8 \\ 12 \end{pmatrix}$ $b1 := \begin{pmatrix} -0.5 \\ -0.7 \\ -0.95 \\ -0.99 \end{pmatrix}$ $y(-1) = 0.9$ [redacted]

$$SNR_{i,j} := 10\cdot\log\left(\frac{0.5}{Teor_{i,j}}\right)$$

$$\sigma(M) := \frac{2^{-2M}}{3}$$

5.2

$$Teor_{i,j} := \frac{0.5 \times 2^{-M_i}}{1 - \sqrt{r_j}}$$

$M := \begin{pmatrix} 5 \\ 8 \\ 12 \end{pmatrix}$ $r := \begin{pmatrix} 0.5 \\ 0.7 \\ 0.95 \\ 0.99 \end{pmatrix}$ $y(-1) = 0.7$ [redacted]

$$Teor = \begin{pmatrix} 0.053 & 0.096 & 0.617 & 3.117 \\ 0.007 & 0.012 & 0.077 & 0.39 \\ 0 & 0.001 & 0.005 & 0.024 \end{pmatrix}$$

$M := \begin{pmatrix} 5 \\ 8 \\ 12 \end{pmatrix}$ $r := \begin{pmatrix} 0.5 \\ 0.7 \\ 0.95 \\ 0.99 \end{pmatrix}$ $y(-1) = 0.9$ [redacted]