

$$n = 10$$

$$m = \text{matrix}(n; n) = \text{matrix}(10; 10) =$$

$$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$$

$$\text{\$Repeat}\{\text{\$Repeat}\{m_{i,j} = \frac{\sin\left(\frac{\pi}{4}\sqrt{i^6+j^5}\right)}{\sec(i \cdot j)}; j = 1 \dots n\}; i = 1 \dots n\} = 0.512$$

$$k = m \cdot m =$$

$$\begin{bmatrix} 0.0584 & -0.357 & 1.03 & 0.0884 & -0.299 & -0.633 & 0.522 & -0.15 & -0.255 & 0.833 \\ -0.892 & 0.671 & -0.31 & 1.22 & 0.312 & 0.0933 & -0.0387 & -0.918 & 0.601 & 0.0312 \\ -1.04 & 0.195 & 1.62 & 0.671 & 0.6 & -0.24 & -0.803 & 0.237 & 0.531 & -0.78 \\ -0.256 & 0.0705 & 0.308 & 0.927 & -0.0209 & -0.0353 & 0.0203 & -0.158 & -0.351 & -1.02 \\ -1.09 & 0.361 & 1.63 & 0.834 & 0.829 & 0.415 & -0.176 & 0.461 & 0.905 & -0.469 \\ -0.576 & 0.299 & 0.241 & -0.334 & 1.17 & 0.187 & -0.265 & 0.563 & -0.193 & -0.197 \\ -0.0604 & -0.403 & -0.746 & -0.1 & 0.637 & -0.167 & 0.0641 & -0.186 & 0.245 & 0.079 \\ -0.542 & 0.118 & 0.0533 & -0.0462 & -0.172 & 0.297 & -0.617 & 0.392 & -0.166 & -0.466 \\ -0.216 & -0.246 & 0.374 & 0.694 & -0.573 & 0.598 & -0.399 & -0.175 & 1.77 & -0.0538 \\ -0.508 & 0.743 & 0.433 & -0.0959 & 1.22 & 0.334 & 0.103 & 0.27 & 0.561 & 0.297 \end{bmatrix}$$

$$k_{_} = m^2 =$$

$$\begin{bmatrix} 0.234 & 0.166 & 0.0845 & 0 & 0.000396 & 0.0198 & 0.525 & 0.011 & 0.414 & 0.0226 \\ 0.000414 & 0.417 & 0.798 & 0.0103 & 0.0921 & 0.122 & 0.0186 & 0.598 & 0.173 & 0.0109 \\ 0.476 & 0.094 & 0.301 & 0.705 & 0.575 & 0.0132 & 0.032 & 0.0869 & 0.0123 & 0.0186 \\ 0 & 0.000803 & 0.705 & 0.108 & 0.0802 & 0.0841 & 0.179 & 0 & 0.00462 & 0.342 \\ 0.0405 & 0.422 & 0.577 & 0.0873 & 0.438 & 0.0114 & 0.00397 & 0 & 0.194 & 0.000776 \\ 0 & 0.00241 & 0.0795 & 0.166 & 0.00973 & 0.012 & 0.000652 & 0.402 & 0.41 & 0.484 \\ 0.284 & 0.00866 & 0.0708 & 0.13 & 0.108 & 0.158 & 0.0668 & 0.012 & 0.0735 & 0.336 \\ 0 & 0.000552 & 0.00618 & 0.347 & 0.207 & 0.0516 & 0.0112 & 0.0698 & 0.654 & 0.0118 \\ 0.416 & 0.226 & 0.0537 & 0.0155 & 0.108 & 0.647 & 0.11 & 0.367 & 0.0673 & 0.155 \\ 0 & 0 & 0.000216 & 0.0681 & 0.825 & 0.00797 & 0.0327 & 0.000471 & 0.116 & 0.262 \end{bmatrix}$$

