

## SVD: Demo 4: Kahan matrix

$$A = \text{diag}(1, s, \dots, s^{n-1}) \begin{bmatrix} 1 & -c & -c & \cdots & -c \\ 0 & 1 & -c & \cdots & -c \\ \vdots & & \ddots & & \vdots \\ \vdots & & \ddots & & -c \\ 0 & 0 & \cdots & \cdots & 1 \end{bmatrix}$$

where  $c^2 + s^2 = 1$ ,  $c, s > 0$ ,  $c = 0.2$ ,  $s = 0.6$ ,  $n = 100$ .