Institut für Numerische Mathematik und Optimierung TU Bergakademie Freiberg

1st Exercise in HPC

Exercise 1 (2P)

Implement a programm to compute the product of the following matrices.

$$A = \begin{pmatrix} 3 & 3 & 3 \\ 0 & 4 & 4 \\ 0 & 0 & 5 \end{pmatrix} \quad B = \begin{pmatrix} \frac{1}{3} & -\frac{1}{4} & 0 \\ 0 & \frac{1}{4} & -\frac{1}{5} \\ 0 & 0 & \frac{1}{5} \end{pmatrix}$$

Controll the result by computing the product by hand.

Bonus Task (2P)

Expand your program so that you can choose the dimension of the matrix. Use scanf("%d",n) such that $A,B\in\mathbb{R}^{n\times n}$.