

**Tecniche di Programmazione in Chimica Computazionale**  
**AA 2023/2024**

**Esame 25/7/24**

- 1) Read from file a matrix of real elements in double precision  $A(n \times l)$ , with  $n > l$ . The values of  $n$  and  $l$  are read from input;
- 2) Define a square matrix  $B(l \times l)$ , taking the first  $l$  rows of  $A$ ;
- 3) Compute the average of the elements of the diagonal of  $B$ , and that of the first column of  $B$ ; if the first average is larger than the second one, define a vector  $c$  as the diagonal of  $B$  minus its average, otherwise define a vector  $c$  as the first column of  $A$  plus the last row of  $B$ ;
- 4) Print on a file the matrix  $B$  and the vector  $c$ .