Tecniche di programmazione in chimica computazionale

Esame 5/9/24

1) Read from the same file an integer number *n*, and a square matrix *A(nxn)* with complex elements in double precision;
2) Compute the sum: of the real part of the elements of the antidiagonal (*s1*); of the imaginary part of the elements of the upper triangular part (*s2*); of the imaginary part of the elements of the first and last column (*s3*);
3) if (*s1-s2*) is larger than (*s2-s3*) compute the transpose conjugate of *A* without using the implicit transpose() Fortran function; otherwise, define a one-dimensional array *b(n)* obtained with the integer part of the real parts of the elements of the diagonal of *A*, and sort it in increasing order;
4) print on a file the results from point 3).