Computing Methods for Physics 1

Lecturer: Francesco Pannarale

Hands on lab session 1A, A.Y. 2021-22

Design and implement a C++ class with name `Complex` to handle mathematical operations between complex numbers and regular `double` numbers.

- Pick appropriate data members
- Implement constructors of all kinds you think may be of use
- Implement setters
- Implement member functions `re()`, `im()`, `mag()`, `phase()`, `r()`, and `phi()` (what these should do should be obvious)
- Overload operators `+`, `-`, `*`, and `/` between `Complex` objects
- Ensure you can also operate on a `Complex` and a `double`
- Overload operators `=`, `+=`, `-=`, `*=`, `/=`

COMMENT YOUR CODE!!! KEEP IN MIND THE BASIC CHECKLIST:

1. Does the code compile?
2. Does it run?
3. Does it produce meaningul and correct output?