

## Assignment 0: Computational

**Problem 1:** Given two matrix the task is that we will have to create a program to multiply two matrices in python. Consider arbitrary dimension of real matrix element. Read matrices as formatted input and write them in formatted output.

**Problem 2:** Find commutator relations among Pauli matrix elements. Define all 2x2 Pauli matrices (remember that elements may be imaginary). Define general formalism of commutator calculation using matrix multiplication, and check the commutator relations.

**Problem 3:** Solve general system of linear equation using matrix inversion approach.

**Problem 4:** Solve ordinary differential equation of 1 dimension using forward Euler method.