

Physics 786, Spring 2023

Problem Set 9, Due Friday, April 14, 2023.

This is a short assignment to give you a chance to work on your final paper/talk.

1. Killing Vectors

a) Consider 2D Euclidean space in Cartesian coordinates x, y . Find the Killing vectors related to translations and rotation about $x = y = 0$ in these coordinates.

b) What are the corresponding “constants of the motion” and their physical interpretation?