

# Homework 4 - Invariant and Equivariant Neural Networks

Ido Nutov & Tuvy Lemberg

July 7, 2025

## **1 Character inner products and Burnside's lemma**

## **2 Netflix Rating Matrices and Group Equivariance**

**2.1**

**2.2**

**2.3**

**2.4**

**2.5**

## **3 Implementing set networks**

**3.1**

**3.2**

**3.3**

**3.4**

**3.5**

## **4 Benchmarking Permutation Invariant Networks on 3D Shape Classification**

**4.1**

**4.2**

**4.3**

**4.4**

**4.5**