

Simulation-based inference with normalizing flows: Progress reports

What we did in week 1

General: Our goal was to familiarize ourselves with the theoretical background of our topic by reading relevant papers and to complete the first milestone—using SBI in a linear regression problem.

David Littel: Mainly read the introductory theory provided and got familiar with SBI using Sven’s linear model implementation.

Sokratis Parmagkos: Toyed with the sbi library on a linear regression problem, and reviewed some theory from the suggested sources.

Katerina Theodoridou: Focused on studying the research papers for SBI and NPE that were provided. Additionally, ran an example implementation of the linear regression problem using the sbi library.

Sven van Zijl: Got familiar with the sbi library by applying it on a linear model and I read the suggested papers.

What we will do in week 2

We should study the theory more deeply to fill in the gaps in our understanding, while clarifying any questions from week 1 during our meetings with the mentors. Furthermore, complete the second milestone—comparing performance across various dimensions and selecting the simulator that will be our main focus in this project.