EpiPINN: Neural Network for Parameter Estimation of Epidemic Model

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1 Introduction

In this project, we attempted to replicate the work of [**?**], using a physics-informed neural network (PINN) to learn epidemic data and estimate the parameters for a fractional-order SEIRD model. We had some difficulties in implementing parts of the paper, and the PINN did not show promising results learning the data or SEIRD parameters to high accuracy.

1.1 Premise of Paper

1.2 Caputo Fractional Calculus

1.3 SEIRD Model

2 Methodology

topic par explain our similar approach, why we did what we did data generation implementation of fractional calculus structure of nn, design choices, logit loss function training process

3 Results and Discussion

topic par results

4 Conclusions

conclusion paragraph