



Machine learning for approaching the polymer continuum model

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Title:

Machine Learning for the estimation of free energy coefficients in the continuous model from the SCFT.

Description:

We offer an exciting internship for a student interested in the convergence between theoretical physics and machine learning techniques. This internship will focus on the use of machine learning methods to estimate free energy coefficients in the continuous model, based on free energy data obtained from Self-Consistent Field Theory (SCFT).

Project objective:

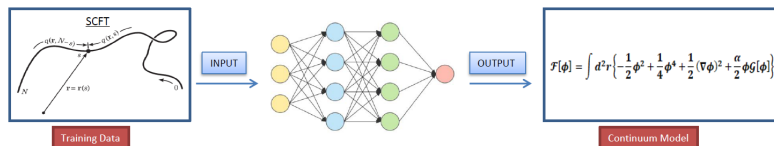
The main objective of this internship is to develop and apply machine learning to accurately predict free energy coefficients in the continuous model. The project will involve the collection and processing of data from the SCFT, the design and training of machine learning models, and the in-depth analysis of the results to validate the accuracy of the predictions.

Tasks and responsibilities:

Collecting and pre-processing free energy data from the SCFT. Exploration and selection of relevant features for learning. Development and training of machine learning models adapted to the problem. Evaluation and validation of models to estimate free energy coefficients. In-depth analysis of the results to understand the physical relationships highlighted by the models.

Practical information :

This internship offers a unique opportunity to explore the fusion between theoretical physics and machine learning techniques. If you are motivated by this opportunity and would like to contribute to this scientific breakthrough, we would be delighted to receive your application.



To apply, please send email to: mmueller@theorie.physik.uni-goettingen.de
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