

Predicting coefficients for graphs

Contents

1 Motivation 3

2 Features 3

3 Intra-loop modelling 3

4 Predicting  $l$  from  $p < l$  loop orders 3

4.1 Approach 1: Timeseries approach . . . . . 3

4.1.1 Shap Analysis . . . . . 3

4.2 Approach 2: General  $l$  learning . . . . . 3

4.2.1 Shap Analysis . . . . . 3

4.3 Ensemble learning . . . . . 3

## **Abstract**

In this set of notes we do the following.

- **denominator graphs:**
  - **Intra-loop modelling** - ability to model within loop level
  - **Modelling higher-loop** based on previous loop order
  - **Shap value analysis** - what is driving the decision
- **f-graphs**

- 1 Motivation
- 2 Features
- 3 Intra-loop modelling
- 4 Predicting  $l$  from  $p < l$  loop orders
  - 4.1 Approach 1: Timeseries approach
    - 4.1.1 Feature reduction
    - 4.1.2 Shap Analysis
  - 4.2 Approach 2: General  $l$  learning
    - 4.2.1 Feature reduction
    - 4.2.2 Shap Analysis
  - 4.3 Ensemble learning