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# Introduction

- 1.1 Radiative transform equation
- 1.2 Bayes Theorem
- 1.3 GMRF
- 1.4 Inverse Rosenblatt transform

## Linear Forward model

- algorithmic box ? or in section?
- define posterior

### 2.1 Sampling

#### 2.1.1 two hyperparameter DAG

Marginal – Gibbs-MH

Conditional - RTO

### 2.1.2 four hyperparameter DAG

Marginal - t-walk

Conditional - RTO

## 2.2 Extending Model to Temperature and Pressure

- algorithmic box ? updating scheme
- write down DAG
- define posterior

### 2.2.1 Squared Inverse Rosenblatt transform

# 3 Nonlinear Forward model

• algorithmic box? updating scheme

## 3.1 Sampling

3.1.1 two or four hyperparameter DAG MTC or t-walk

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## Nonlinear to Linear Forward model

## 4.1 Stategie

- scheme image
- 4.2 local linear Map
- 4.2.1 Machine learning vs Gaussian elimination