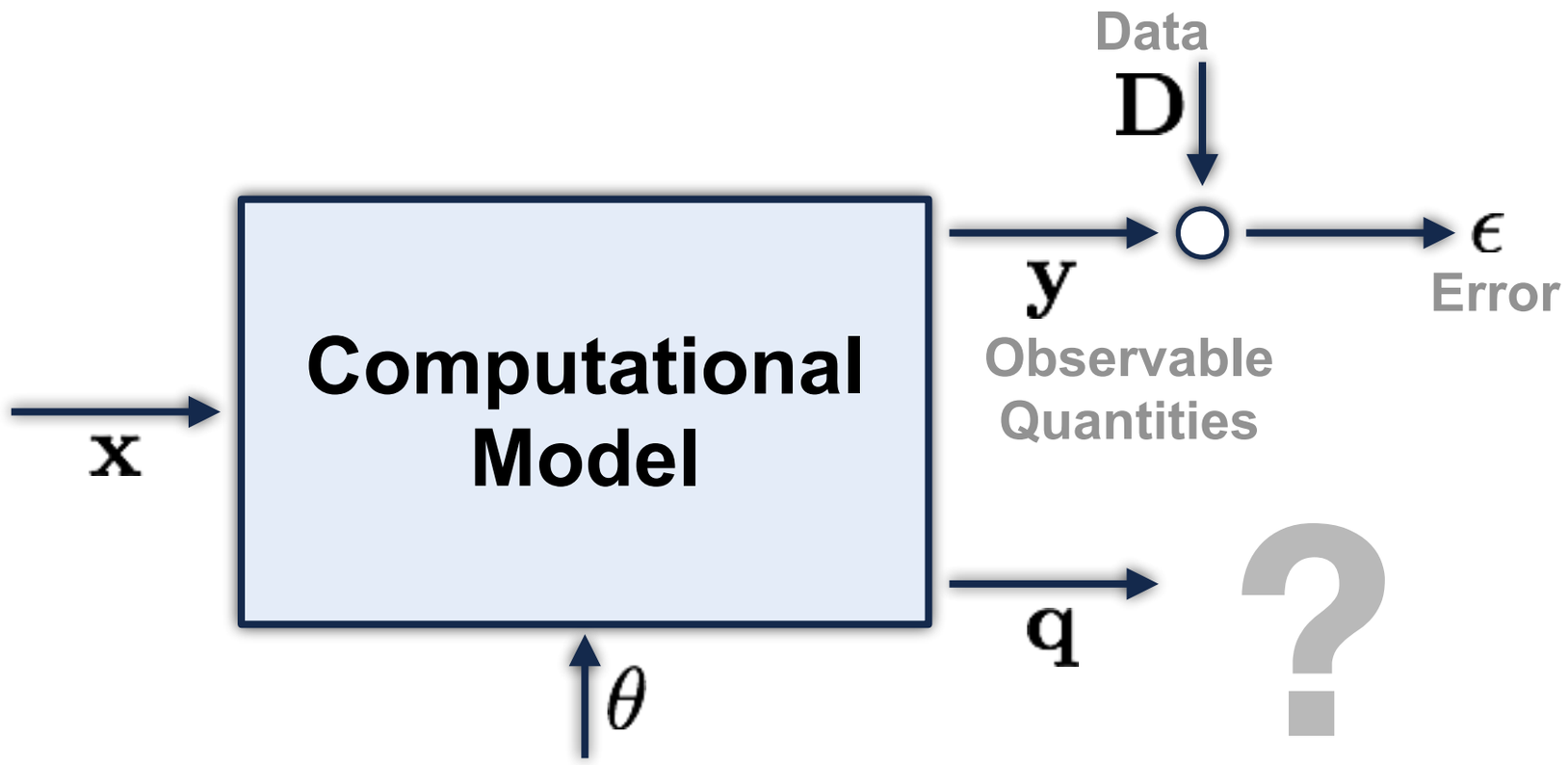
Introduction

Generally, there is no observational data available for the QoIs for the scenarios of interest; this fact forces us to make extrapolative predictions.



In order to asses the validity of the model, classical approaches to validation compare some observable outputs to observations.
This only ensures that the model can predict:

- the observable quantities,
- under the conditions of the observations,
- under the assumption of no observation error.

The need to extrapolate raises concerns about the reliability of predictions.
What entitles us to make such predictions?

Introduction

The computational models are generally physics based, and they are constructed upon theories that are known to be highly reliable within well-defined domains of applicability.