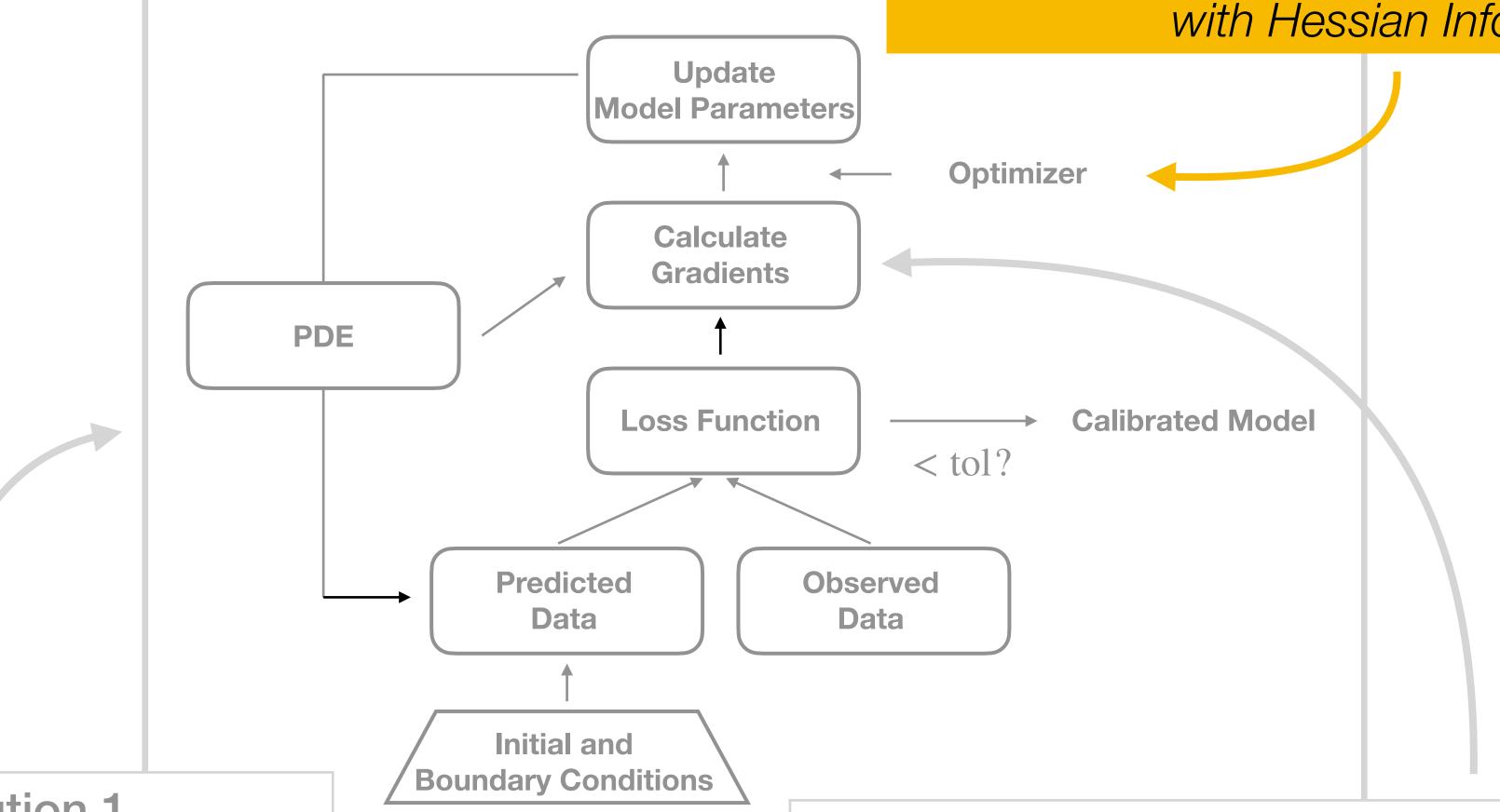
## Contribution 3 2nd Order Physics Constrained Learning Accelerating Convergence and Improving Accuracy with Hessian Information



## Contribution 1 Software Implementation

ADCME: Gradient Calculation and Inverse Modeling Pipelining

Contribution 2

1st Order Physics Constrained Learning

Calculating Gradients for Implicit & Iterative Operators