

# **Numerical Methods for PDEs: An Interactive Journey**



# Welcome

Welcome to this interactive journey through **Numerical Methods for Partial Differential Equations (PDEs)**.

You will explore the subject through **dialogues between Acharya and Pavni**, discovering history, classification, and numerical methods step by step.

## Levels

- Level 1: Origins of PDEs
  - Level 2: Classification of PDEs
  - Level 3: Physical Interpretation and boundary conditions
  - Level 4: Finite Difference Methods- Introduction with application to the Heat Equation
  - Level 5 : Hyperbolic PDEs
  - Level 5.5: Numerics for Hyperbolic PDEs
  - Level 6 : Von-Neumann Stability Analysis
  - Level 7 : Elliptic PDEs
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Stay tuned as new levels  
unlock — from classification  
of PDEs to discretization  
techniques and beyond!

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