Training Methodology Comparison: L-BFGS vs NUTS

UDE Training: L-BFGS Optimization

- Hyperparameter Grid Search
- L-BFGS Optimization
- ODE Solver (Rosenbrock23)
- Loss Function (RMSE + MAPE)
- Best Config (width=3, λ=1e-6)
- Symbolic Extraction
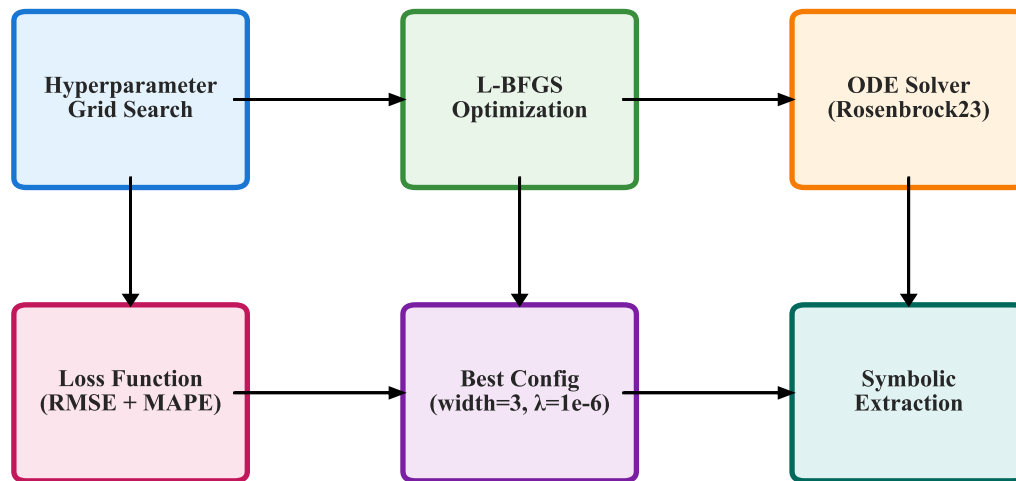
BNODE Training: NUTS MCMC Sampling

- Prior MvNormal(0,0.1²)
- NUTS Sampler
- MCMC 1000×4 chains
- Posterior Predictive
- Coverage Diagnostics
- Calibration 50%=0.541