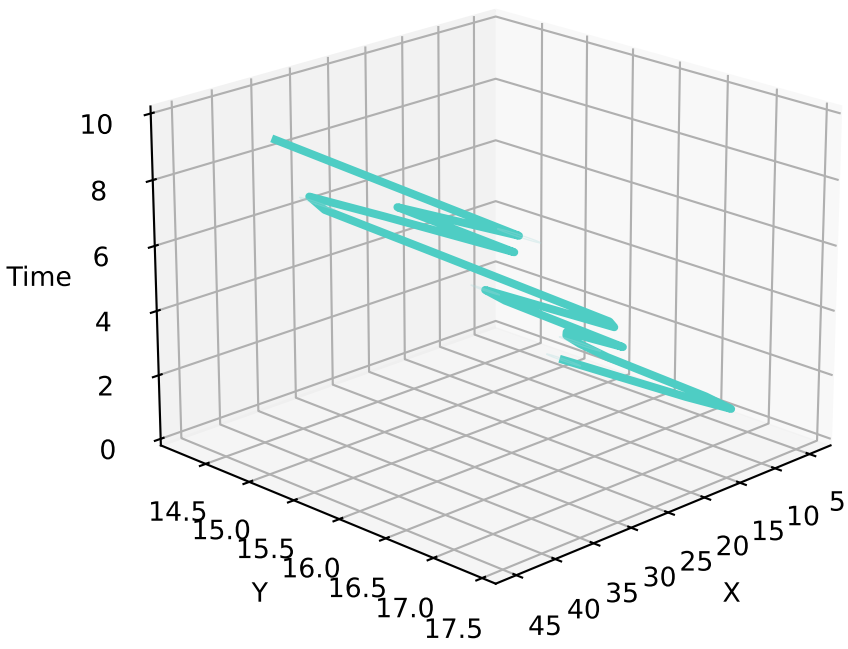
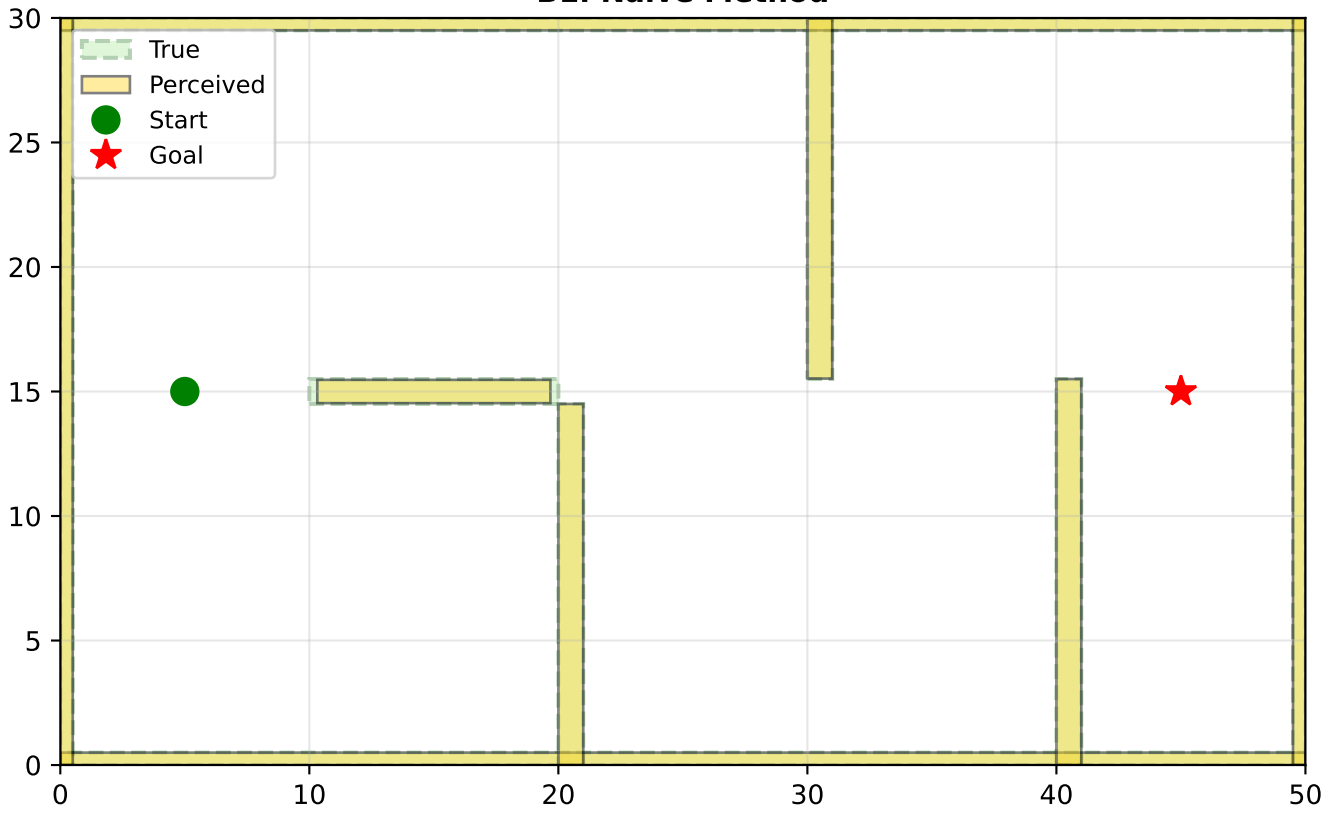


Uncertainty-Aware Path Planning with Conformal Prediction  
Safety Guarantees Through Rigorous Uncertainty Quantification

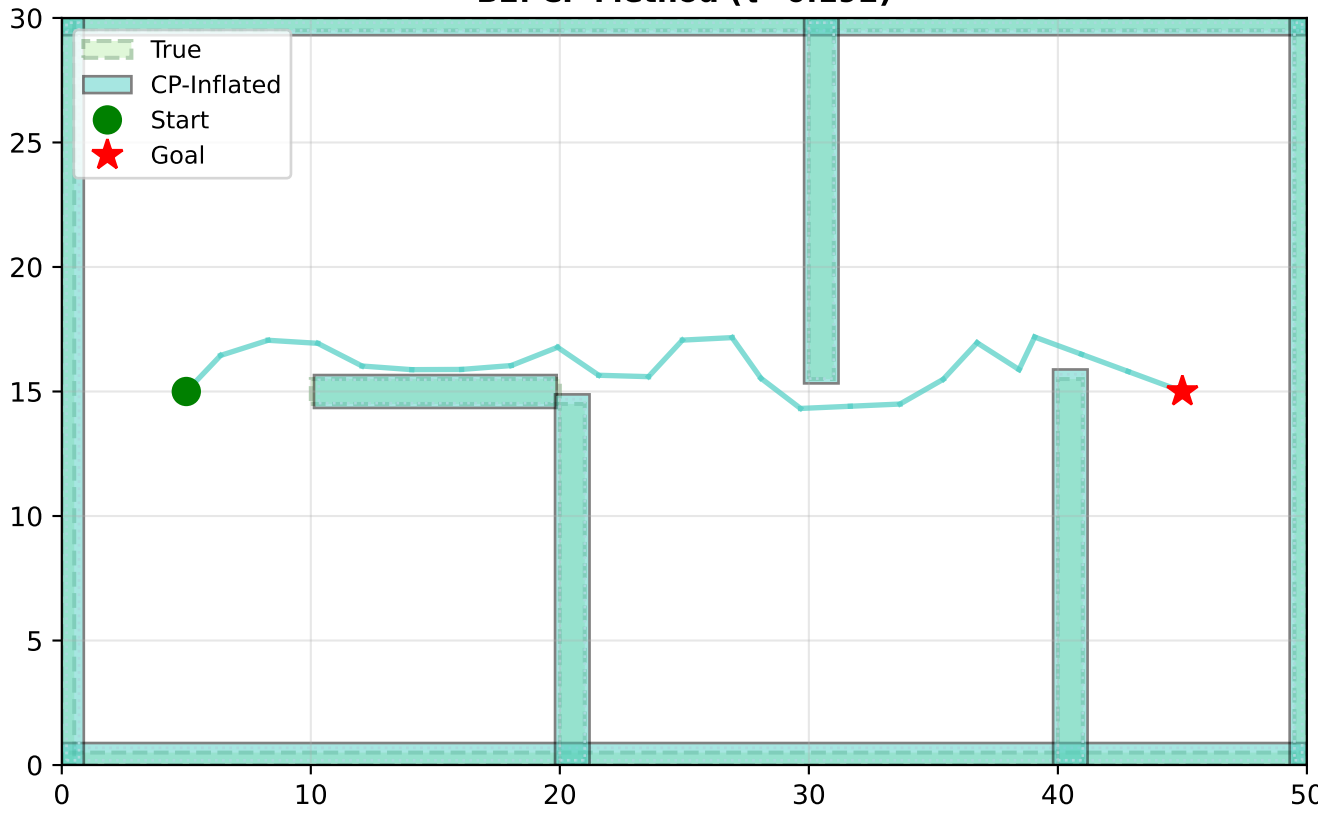
A. Uncertainty Tube Visualization



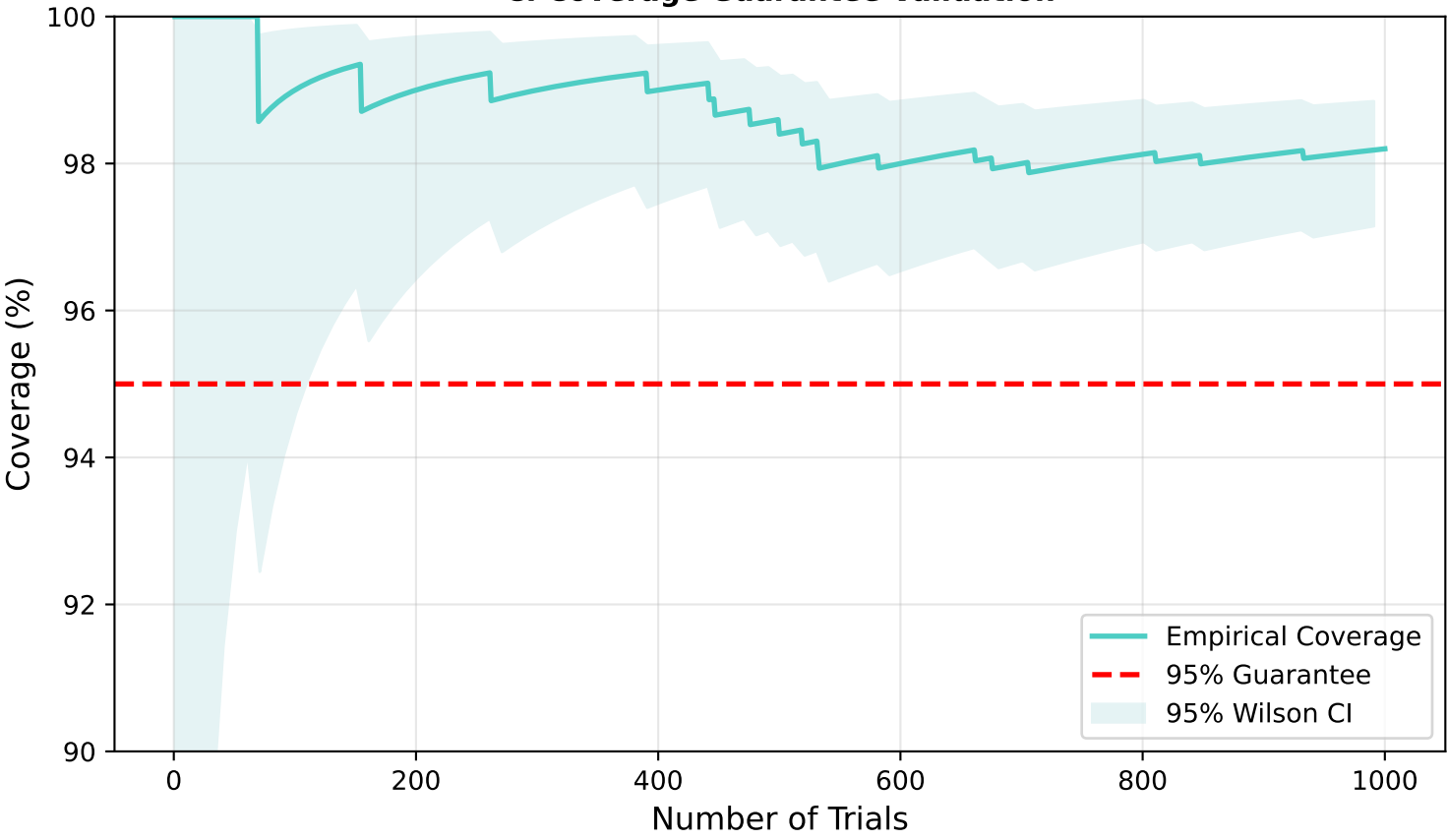
B1. Naive Method



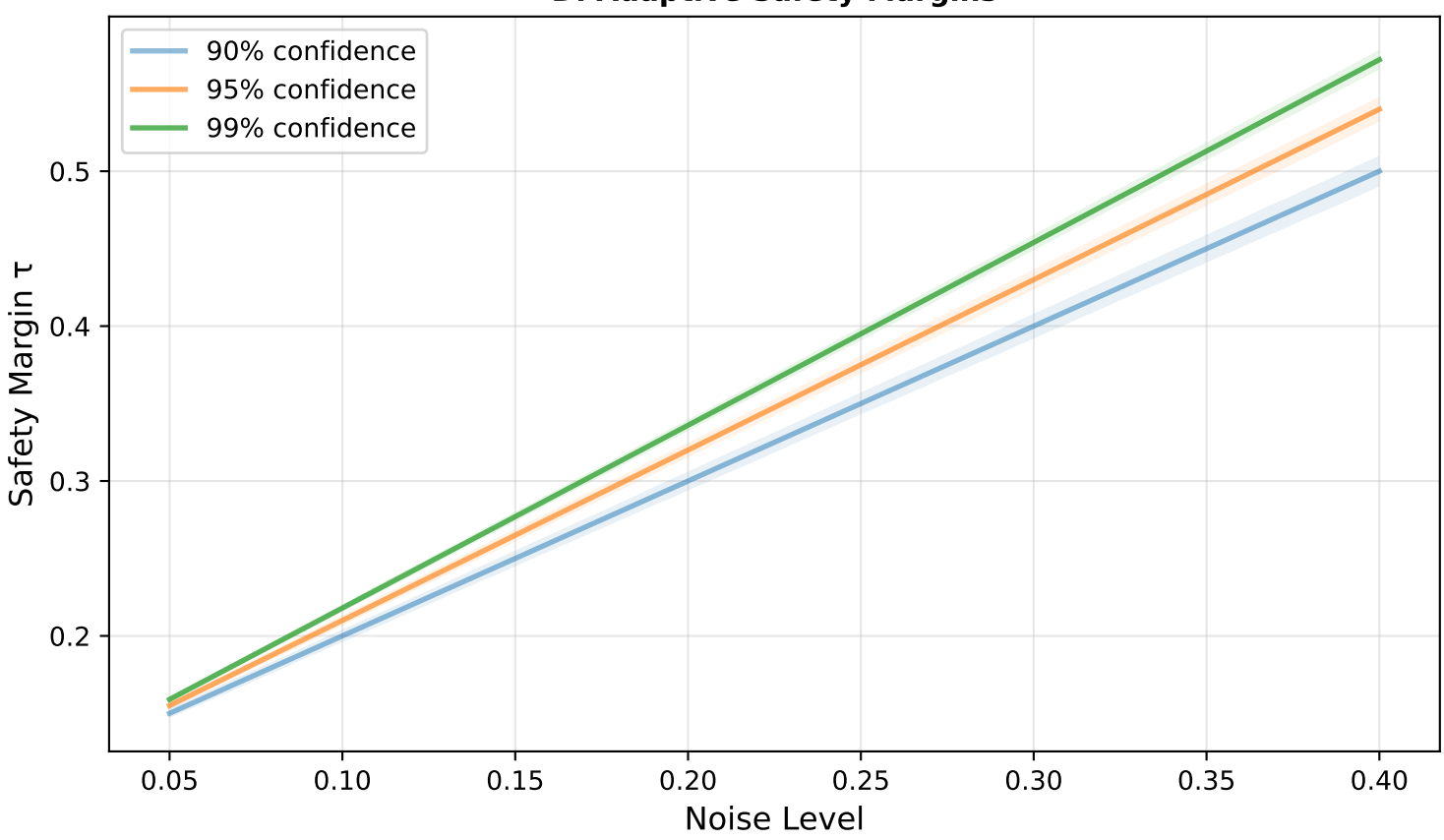
B2. CP Method ( $\tau=0.192$ )



C. Coverage Guarantee Validation



D. Adaptive Safety Margins



E. Temporal Evolution of Uncertainty

