Task 1: Dual-Engine Vote Reconstruction

MAP warm-start → constrained MH-MCMC → temporal smoothing

Inputs • judge scores/ranks • elimination outcome • priors + constraints

Stage A MAP search (feasible set, coarse fit)

warm start

Stage B MH-MCMC sampling (constrained moves)

samples

Temporal smoothing (GP / AR prior) reduce week noise

posterior summary

Outputs • vote-share mean • 95% CI • reconstructed order