$\hat{\theta}$ by noise level case24_ieee_rts 0.25 angle $heta_i$ (radians) 0.00 --0.25Voltage phase -0.50 - θ_i true $\hat{\theta}_i \ \sigma = 10.0\%$, rel_err=5.038% $\hat{\theta}_{i} \ \sigma = 25.0\%$, rel_err=9.959% -- $\hat{\theta}_{i}^{*} \sigma = 50.0\%$, rel_err=48.558% 2.5 5.0 7.5 10.0 12.5 Bus Index i