



БІЛДІННЯ ШІРКОКІСТЬ

$$MSE(\hat{\theta}_N) = E(\hat{\theta}_N - \theta^*)^2 = E[(\hat{\theta}_N - E\hat{\theta}_N) + (E\hat{\theta}_N - \theta^*)]^2 =$$

$$= E(\hat{\theta}_N - E\hat{\theta}_N)^2 + \cancel{E(E\hat{\theta}_N - \theta^*)^2} + 2E[(\hat{\theta}_N - E\hat{\theta}_N)(E\hat{\theta}_N - \theta^*)]$$

bias

$$MSE(\hat{\theta}_N) = Var \hat{\theta}_N + bias^2 \hat{\theta}_N$$

ПОСТУЛАТ (ЧЕРГОВИЙ АКТ)

$$N \rightarrow \infty \Rightarrow MSE(\hat{\theta}_N) \rightarrow 0$$

