## RLS Algorithm: Design guidelines

- For high SNR (> 30 dB), stationary environments present information reliable : choose $\lambda \approx 1$.
- High SNR, slow non-stationary environment choose $\lambda$ small & weight present observations more.
- For low SNR (< 10 dB), present observations unreliable & prior information better: choose $\lambda$ large & de-emphasize noisy observations.

## RLS Algorithm : Guidelines

- Memory parameter $\lambda$ provides trade-off between time/frequency resolution.
- For low SNR, initialize inverse recursion with large matrix norm: $P[0] = \delta I$, $\delta$ large.
- For high SNR, initialize the inverse recursion with small matrix norm: $P[0] = \delta I$, $\delta$ small.
- If environment is highly non-stationary retraining needed.