

# Spectrum Estimation and Adaptive Signal Processing Coursework

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## Part 1

# Nonparametric Spectrum Estimation

## 1.1 Properties of Power Spectral Density (PSD)

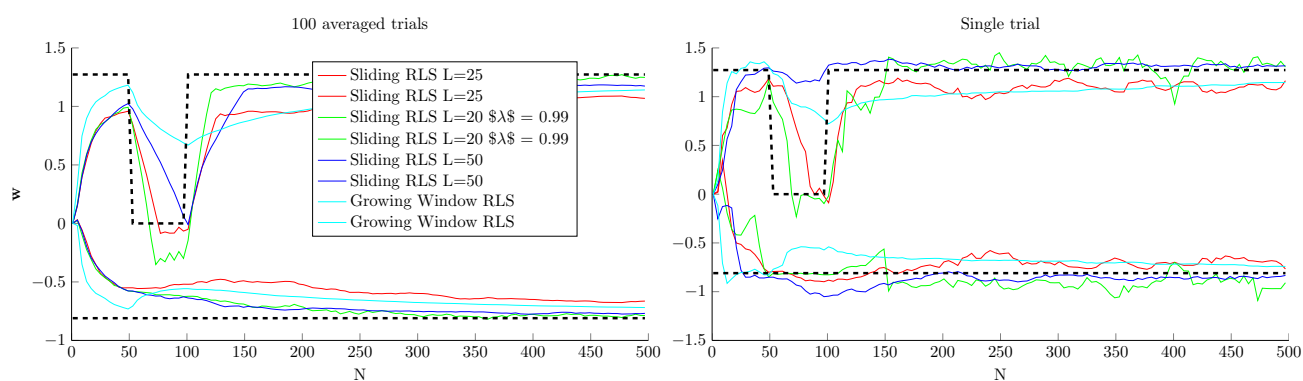


Figure 1.1: Comparison of learning rate for various algorithms for time varying coefficients

Approximation in the definition of PSD

## Bibliography

- [1] Lectures on Fourier Integrals, *Salomon Bochner*, 1959, Princeton University Press
- [2] The Rayleigh Quotient Nuno Vasconcelos, ECE Department, UCSD <http://www.svcl.ucsd.edu/courses/ece271B-F09/handouts/Dimensionality3.pdf>