

FROM WIENER TO HIDDEN MARKOV MODELS: COMMON THREADS OF FILTERING AND SMOOTHING

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Filtering of random signals to eliminate the effects of noise is a very old topic. Optimal filter design probably commenced with Wiener, and received a significant impulse with the work of Kalman, and in recent times with techniques for filtering hidden Markov models. In many circumstances, smoothing can give improved performance relative to filtering. In this talk, we shall trace (with almost no mathematics) some of the main streams of development, up to current research thrusts.