

Concept Question 9-7: Why did the stochastic Wiener deconvolution filter produce a much better estimate than the deterministic Wiener deconvolution filter in Section 9-6?

Because the stochastic Wiener deconvolution filter incorporated *a priori* information in the form of the 2-D power spectral density, Eq. (9.111), of the MRI image.

$$S_f(\Omega_1, \Omega_2) = \frac{C}{(\Omega_1^2 + \Omega_2^2)^2}. \quad (9.111)$$