Figure 1.1: Sample path of a stationary process. Statistics would be constant in time.
Figure 1.2: Sample path of a CS process. Statistics would be period in time.
Figure 1.3: A narrow-beam radar antenna rotating in a non-uniform field produced by a stationary signal source. The output signal of the receiver is cyclostationary.
Figure 1.4: Ensemble mean and RMS of velocity behind the stator blades of a turbine. The intensity of random fluctuation is much stronger behind the stator blades than between them.
Figure 1.5: Ensemble RMS velocity at a fixed point behind a wind propeller. The intensity of random fluctuation is significant and varies in time.
Figure 1.6: Autocorrelation function of $S(t)$, when $\omega_1$, $\omega_2$ are equal and $\phi_1$, $\phi_2$ are also equal. $S(t)$ is a stationary process.
Figure 1.7: Autocorrelation of $S(t)$, when $\omega_1, \omega_2$ are different and $\phi_1, \phi_2$ are equal. $S(t)$ is a CS process.
Figure 1.8: Autocorrelation of $S(t)$, when $\omega_1$, $\omega_2$ are different and $\phi_1$, $\phi_2$ are statistically independent. $S(t)$ is a stationary process.
Figure 3.1: Ten laps of a test track. The sample path indicates that the statistics would vary periodically.
Figure 3.2: Sample path of the road and the vehicle model.
Figure 3.3: Autocorrelation of the road excitation. It is periodic in time and hence the excitation is cyclostationary.
Figure 3.4: Comparison of results of a CS model and approximate stationary model obtained using the analytical method (upper curve) and Monte Carlo simulation (lower curve).
Figure 3.5: Effect of velocity on the ratio of maximum standard deviation to average standard deviation.
Figure 3.6: Plot of maximum standard deviation of response vs. $\omega_e/\omega_{natural}$. 