Physics 391 Lesson 30 Preflight

1. What is the power spectrum of a set of data?
2. What mathematical form produces a Lorentzian profile? What is one physical process this mathematical form models?
3. Describe in words how to calculate the autocorrelation of a time series. What changes with the cross-correlation?
4. What is the modulation transfer function and what is it used for?
5. In words what does the optical transfer function tell us? How do you calculate it?