Readings and Discussion Questions

Thursday October 5

Read Chapters: 4.3.1

Discussion Questions

1. How does Theorem 2 (ii) allow you to relate smoothness of u with decay at infinity of $\hat{u}$? What does taking the inverse Fourier transform of (ii) tell you?

2. What does taking the inverse Fourier transform of Theorem 2 (iii) tell you?

3. What is the relationship between $\hat{u}$ and the Fourier transform of a translation of u?

4. In the telegraph equation, why does $d > 0$ correspond to damping?