

18-799F Algebraic Signal Processing Theory

Spring 2007

Assignment 5

Due Date: Feb. 28th 2:30pm (at the beginning of class)

1. (50 pts) Read chapters A and B in section II of the *Algebraic Theory of Signal Processing* paper (pp.8-14) at least twice on **two different days** and understand as much as possible.
2. (50 pts) Consider the case of infinite discrete time signal processing. Fill in the second column of table II (p.12), i.e. determine the exact form of all abstract (coordinate-free) entities in this table, such as h , s , \mathcal{A} , \mathcal{M} , Δ , W , etc.