Day 4 - Reading

Read:

- Section 1.4.2, up to just before Lemma 1.1.
- Theorem 1.5
- Theorem 1.8
- Theorem 1.9 and the discussion afterwords, up to just before the Dantzig selector.

Questions:

1. What is the relationship of the RIP and the NSP?
2. What is the relationship of the RIP and spark?
3. What condition on RIP guarantees sparse recovery? What happens if the signal isn't exactly sparse? What happens if there is noise?
4. In the presence of noise and an exactly sparse signal, is the error estimate in Theorem 1.9 optimal?