Maths 190
Topics be covered for the week of 28 January -03 February 2017

For this week, we aim to cover the following theories/concepts:

1. The law of one price via an example: Determining the forward price

2. How derivatives are employed in hedging, speculation and arbitrage. Some examples will include
   (a) Use of futures/forwards for hedging
   (b) Hedging strategies using options
   (c) Speculation using options
   (d) Demonstration of arbitrage strategy

3. Futures options

   Determination of forward and futures prices

4. Forward prices for a security that provides no income

5. Forward prices for a security that provides a known cash income

6. Forward prices for a security that provides a known dividend yield

7. Valuing forward contracts

8. Stock index futures

9. Forwards and futures contracts on currencies

10. Futures on commodities

11. The cost of carry

12. Factors affecting option prices

13. Properties of stock option prices