META

Conditional Expectation, Continuous Probability, Continuous Distributions

1   General Comments

1. Conditional Expectation

   - Make the connection between normal expectation and conditional expectation, and explain intuitively what conditional expectation means

   - Explain what LLSE is, and why the formula makes sense–intuitively, why. If there is time or interest, prove it.

2. Continuous Probability

   - Be sure to go over conditional expectation (we apologize for the confusion, all the TAs were under the impression we weren't covering it, then the professor went ahead and covered it).

   - Try to draw parallels between discrete and continuous; something that helps is writing out the sums and then replacing everything with integral (do calculus review as necessary)

2   Questions

2.1 Conditional Expectation

1. **Expectation of Conditional Expectation**

   - Using many properties of summations, make sure students understand each step

2. **Take Out** h

   - Using many properties of summations, make sure students understand each step

3. **Given Probability Distribution**

  - Plug and chug, going back to basic distributions.