

Assignment #11: Bohm's Theory and Modal Interpretations.

1. (2pt.) Explain the sense in which Bohm's Theory is deterministic.
2. (2pt.) In Bohm's Theory, given the initial position of a *black* electron, we can predict with certainty the outcome of a *Hardness* measurement. How can you reconcile this with the fact that experimental data indicates that at most all we can know is the probability of the outcome of such a measurement?
3. (3pt.) Explain the sense in which Bohm's theory is non-local in a way that is more "spooky" than the non-locality of standard quantum mechanics as suggested by Bell's Thought Experiment. Why can't we take advantage of this Bohmian spookiness?
4. (3pt.) How do Modal Interpretations get around the Kochen-Specker Theorem? Explain two characteristics of Modal Interpretations that distinguish them from a literal interpretation.