
This sheet is optional. Its points do not count toward the total 100 %.

[P14] (Interpretation of Bell’s argument) We have treated Bell’s Theorem which gives a criterion for refuting local realism. However, the rigorous argument as presented is agnostic about whether locality, or realism, or a combination of both needs to be dropped. (I have expressed my personal preference for abandoning at least realism).

Recently, several participants of the class attended an event where a speaker seemed to have claimed to have a stronger result: namely that it can be *proved* that locality is incompatible with the predictions of quantum mechanics (and, essentially, experimental observations). His argument can be found in the book “Bohmian Mechanics: The Physics and Mathematics of Quantum Theory” on page 202 (plug the title into books.google.com, go on to search for “always lurking” within the book to get to that page).

Discuss in a few lines in which way the author arrives at this stronger claim. (Number of points awarded is correlated with the level of insight and persuasiveness of the discussion, *not* with whether you side with the above author or the present lecturer).

(+5)