Written Assignment 3

Either (a) One possible view of the nature of scientific theories (known as "operationalism") is that they are simply "shorthand accounts of the [experimental] phenomena themselves, effecting an 'economy of thought' in dealing with them" (Hesse). Examine this view as applied either to Newtonian mechanics or to the wave theory of light.

or (b) Explain in your own words, but as clearly as possible, why it is difficult to reconcile the Galilean invariance of Newtonian mechanics with the classical electromagnetic theory of Maxwell.

Please submit as a double-spaced Word document ('.docx' or '.doc') on Compass by class time (2p) on Thursday, 11 October. <u>Note that there is a tweak for the</u> <u>submission location on Compass: submit using the 'Assignments' link on the</u> <u>left-hand menu, and do not use the (now-relabeled) 'Assignments 1 & 2' link</u> <u>on the front page.</u>

> Your submission should generally be 650-1000 words (about 2-3 pages, but go by word count).