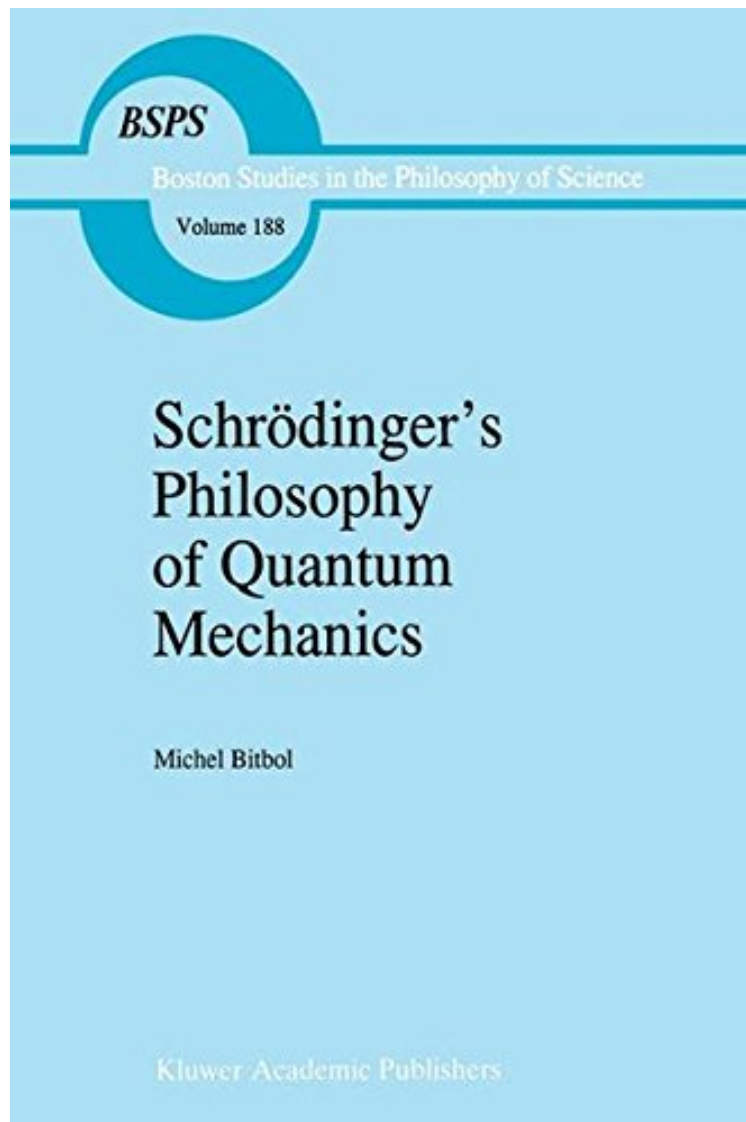


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Schrödingers Philosophy of Quantum Mechanics (Boston Studies in the Philosophy and History of Science)

Michael Bitbol

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Michael Bitbol : Schrdingers Philosophy of Quantum Mechanics (Boston Studies in the Philosophy and History of Science) before purchasing it in order to gage whether or not it would be worth my time, and all praised Schrdingers Philosophy of Quantum Mechanics (Boston Studies in the Philosophy and History of Science):

4 of 5 people found the following review helpful. Less Philosophy, More Physics please By Martin Green This work is

a very important and badly needed piece of research. Bitbol chronicles Schroedinger's attempts to promote the wave picture versus the particle/probability/collapse interpretation of the Copenhagen School. Schroedinger was hounded and ridiculed by the Born/Heisenberg/Lorentz cabal until he finally gave in, even teaching his own students the Copenhagen version for several years before returning with renewed vigor to his original wave picture in the final decade of his life. I say the work is important because it's a story which is not told anywhere else; in fact it is everywhere superseded by the oft-repeated mythology of "the three nails": the first two being the black body spectrum and the photo-electric effect, and the Compton effect being the third and final "nail in the coffin" of the wave theory of light. You can search in vain on the Internet for an account of Schroedinger's wave-theoretic explanations of all three of these phenomena. It is to Bitbol's great credit that he references all these fascinating papers. Schroedinger's interpretation has today been thoroughly marginalized to the point where, for example, he does not rate even a mention in the Wikipedia article listing a dozen different interpretations of Quantum Mechanics. Copenhagen, Pilot Wave, Many-Worlds...but not Schroedinger's wave mechanics. For the record, Schroedinger did not believe in the photon, he did not believe in the collapse of the wave function, and he did not believe in the individuality of electrons and protons. If there were phenomena which he was unable to explain, such as the individual clicks in a geiger counter, then the reason was not because his theory was a failure, but simply that no one as of that moment had yet had enough imagination to see the correct explanation. I for one believe Schroedinger's vision will someday be vindicated. The frustrating aspect of Bitbol's work is simply that there is too much philosophy and not enough physics. Bitbol's focus is on the philosophical underpinnings of Schroedinger's work. Yes, he lists all the significant physical results, but most of them get only a single line of description, leaving the reader to fill in the gaps on his own. A reader who does not know the difference between "ontology" and "epistemology" will find most of this book a pretty hard slog. I hope Bitbol finds his mark with the right audience, but for me it was ultimately a case of "so close yet so far".

This book is the final outcome of two projects. My first project was to publish a set of texts written by Schrodinger at the beginning of the 1950's for his seminars and lectures at the Dublin Institute for Advanced Studies. These almost completely forgotten texts contained important insights into the interpretation of quantum mechanics, and they provided several ideas which were missing or elusively expressed in SchrOdinger's published papers and books of the same period. However, they were likely to be misinterpreted out of their context. The problem was that current scholarship could not help very much the reader of these writings to figure out their significance. The few available studies about SchrOdinger's interpretation of quantum mechanics are generally excellent, but almost entirely restricted to the initial period 1925-1927. Very little work has been done on Schrodinger's late views on the theory he contributed to create and develop. The generally accepted view is that he never really recovered from his interpretative failure of 1926-1927, and that his late reflections (during the 1950's) are little more than an expression of his rising nostalgia for the lost ideal of picturing the world, not to say for some favourite traditional picture. But the content and style of Schrodinger's texts of the 1950's do not agree at all with this melancholic appraisal; they rather set the stage for a thorough renewal of accepted representations. In order to elucidate this paradox, I adopted several strategies.