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A RATIONAL RE-CONSTRUCTION OF DIRAC'S BOOK OF QUANTUM MECHANICS ACCORDING TO TWO RECENT RESULTS

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In the first edition of his celebrated book, *The Principles of Quantum Mechanics* Paul Dirac rejected the axiomatic method as inadequate to the new theory; he implicitly applied, although in an approximative way, a new model of theoretical organization which was later discovered through a comparison of some past mathematical and physical theories. However, being unable to formalize this new organization, in the next editions of his book he conformed his presentation of the theory to an axiomatic organization.

In the year 2009 Franco Strocchi discovered a suitable Poisson algebra inside which Dirac's analogy between commutators and Poisson brackets is represented by an exact proportion.

These two novelties suggest to rationally re-formulate Dirac's book on the above C^* -algebra and according to the new kind of organization. A new textbook on quantum theory results, which may be compared with the previous didactic textbook of this kind of approach, T.F. Jordan's.

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