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Towards a demystification of quantum mechanics

Quantum Mechanics is being included in numerous school programmes as part of the curriculum. Most modern textbooks introduce it emphasising its *strange* or at least *uncommon*, somewhat *paradoxical* character. We argue that such an approach is wrong because rather than *attracting* the interest of students toward the topic, it makes it almost *unbelievable* and *artificial*. The resulting perception is that quantum mechanics is in fact not understood at all and that we need a new theory that eventually will supersede it.

In contrast, we propose a new approach on classical physics that, stressing the role of the measurements in physics, introduces the concept of **state** very early in the curriculum. Such a concept is reviewed on each classical physics topic and the concept of **force** as a vector is almost abandoned for the concept of **interaction** defined as something that change the state.

In this way it is possible to introduce quantum mechanics without violating any conviction the students acquired learning classical physics. In other words quantum mechanics appears to be as *natural* as classical physics, at least from the point of view of the results of the experiments.

Experimental Collaboration

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