

Happy New Year 2013
EJTP 28 ISSUE, an Invitation to reading

Dear Reader,

After a short interval EJTP comes back with an issue which can be considered the ideal continuation of the previous one. A short issue, a rigorous selection process and as an outcome a bunch of high conceptually dense papers some of which are greatly beautiful from the formal viewpoint.

Ali Shojaei-Fard (Potsdam) rethinks the “Quantum Equation Motion” in the light of non-commutative and non-perturbative geometries, as a further confirmation that the traditional concepts get a new meaning under the action of the latest mathematical tools; Charles Francis (Oxford) tries to build a bridge between Quantum Mechanics and Quantum Field Theory by looking for a shared logic structure. I take the liberty to quote here a passage which will clarify the author idea:

“In the present treatment quantum properties are understood to arise precisely because space does not appear as a fundamental physical concept. Measurement results are seen as relationships between the matter (or radiation) under study and reference matter used to defined the measurement”.

We can smell here the scent of a new season for the interpretation of Quantum Mechanics under the aegis of Quantum Field Theory.

In his paper Koustubh Ajit Supriya Kabe (Mumbai) proposes a “statistic” way to describe the passage from micro to macro in the Theory of Loop defining a condensed geometry.

Ivan I. Iliev (Sofia) gives a panoramic vision on the hydrogen atom physics and one of the most charming object of the “spheres mathematics”: the Riemann zeta function. The hydrogen has been the keystone of atomic physics, will maybe the Riemann function be a guide for some fundamental aspects of the physic world?

George Triantaphyllou (Athens) presents his elegant “mirror world” theory based on E_8 group, which unifies gauge with gravitational interactions and suggests an original solution to the problem of the genesis of masses.

Classical, but not less demanding problems are in the works by Mahmoud A. A. Sbaih, Moeen KH. Srour, M. S. Hamada and H. M. Fayad(Gaza) on the $SU(4)$ group representation and Pauli matrices; Navjot Hothi and Shuchi Bisht (Kumaun University, India) put String Theory to the test in its roots: hadronic physics. Anil Kumar Yadav (Anand College, India) keep on their systematic exploration of cosmological models with variable Λ .

Being stick to the idea that Physics is what physicists do (late at night!) we close the issue with a beautiful econophysics paper by Lamine M. Dieng (NY) on the unifying power of quantum mechanics language in the study of stochastic processes and one by Michail Zak on the necessity to complexify the concept of information in physics, and especially to describe living organisms.

As usual this EJTP issue is the outcome of the Editorial Board collective effort, made

by intense arguing, different competences and ways to consider problems and tendencies, but all united by the same passion for Physics.

The acknowledgements give here way to the memory of a great friend and a master Marcello Cini Florence, July, 29 1923 - Roma, October 22, 2012). We had the honour to get him as our author twice ("Particle Interference without Waves EJTP EJTP Volume 3, Issue 13 (2006), Mental and Physical Objects in Quantum Mechanics: Any Lessons for other Disciplines?" EJTP Volume 4, Issue 15 (2007), he was also awarded with Majorana Medal with Lee Smolin and Eliano Pessa. I remember that Marcello was skeptical because he had never published in an online journal before. We would say, paraphrasing Einstein when his friend Michelangelo Besso died: "That means nothing. People like us, who believe in physics, know that the distinction between past, present and future is only a stubbornly persistent illusion".

But it would not sound convincing, because we miss Marcello!

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