Ben-Gurion University of the Negev

2012/13 Seminar Series

The Jacques Loeb Centre For the History and Philosophy of the Life Sciences

The Atomic and Nuclear Structures under One Law of Nature

Itzhak Orion (Department of Nuclear Engineering, BGU)

New insights on nuclear structure derived from the perspective of quantum physics combined with radioactivity studies point out consistency of nature. This raises two questions:

A) The riddle of random sampling: How can the usage of random sampling for radiation simulations show a systematic determinist mechanism?

B) Structure of matter: Can we compare the structure of the atom with the structure of the nucleus?

According to the atomic structure, electrons are bounded by a quantum field. In the nuclear system, which is actually another quantum system, it is common to assume that the particles are bounded by the strong nuclear force with yet unsolved properties.
In this talk I will introduce a novel approach explaining the atom quantum field and the nuclear system phenomenon under identical terms.

December 24th (**Monday**)

Building **39** (Biology), Room **106** (de Picciotto conference room),

16:15 to 17:45.

Coffee & refreshments will be available at 16:00

About the Seminars: The Jacques Loeb Centre seminars provide an interdisciplinary forum, in which historians and philosophers of science, as well as scientists, present and discuss new research related to science with a special focus on the life sciences. Case studies and surveys examine the impact of political, socio-economic and personal factors on the conduct of science, the ethics of research, and the causes of progress and setbacks. **Faculty and students from all disciplines are invited!**

For further information, updates, and reminders please join our mailing list simply by sending a mail requesting to join or simply by clicking here.

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