



Special Issue on Advances in Quantum Physics

Call for Papers

Since its birth about one century ago, quantum mechanics has been full of controversy due to its many counter-intuitive features, such as wave-function collapse, randomness in measurement, non-local entanglement, wave-particle duality, uncertainty principle, etc. To cope with these puzzles and difficulties, different interpretations have been proposed to make quantum mechanics look like rational and self-consistent, such as: Copenhagen interpretation, many-worlds interpretation, von Neumann/Wigner interpretation which claims that consciousness causes the collapse, etc. The controversy in quantum mechanics is actually one of the propelling forces behind the advances of quantum physics. Many experiments have also been conducted to test the weirdness of quantum mechanics. These experiments include experiments testing Bell's inequality which confirmed the non-local property of quantum mechanics, and interaction-free measurements related to many-worlds interpretation, etc. Besides the researches performed to explore the scientific and philosophic aspects of quantum physics, many technologies are also developed base on quantum physics. In fact, quantum physics is one of the corner-stones of modern technology, such as semiconductor chip, laser, MRI, nanoelectronic, quantum cryptography, and many more. Researchers involved in quantum physics are from different scientific fields, including physics, chemistry, philosophy, mathematics, engineering, nanotech, computer science, material science, etc.

The issue on "Advances in Quantum Physics" will focus on both theoretical and experimental research frontiers.

Topics covered include but not limited to:

- quantum optics
- quantum electronics
- quantum technology
- quantum information
- quantum computing
- interpretation of quantum mechanics
- interaction-free measurements
- quantum measurement
- quantum condensed matter
- quantum gravity
- quantum chemistry

In this special issue, we intend to invite front-line researchers and authors to submit original research and review articles on Advances in Quantum Physics.

Authors should read over the journal's [Author's Guidelines](#) carefully before submission. Prospective authors should submit an electronic copy of their complete manuscript through the



journal at [Paper Submission System](#).

Please kindly notice that the “Special Issue” under your manuscript title is supposed to be specified and the research field “Special Issue —Advances in Quantum Physics” should be chosen during your submission.

According to the following timetable:

Submission Deadline	September 5th, 2013
Publication Date	November 2013

Guest Editor

For further questions or inquiries

Please contact Editorial Assistant at jmp@scirp.org