

Fifth Annual Conference on The Physics, Chemistry and Biology of Water

Title: Water and an Advance in the Foundations of Quantum Mechanics

Author/Speaker: Juliana H. J. Mortenson, M.D.

Affiliation: General Resonance, LLC
One Resonance Way
Havre de Grace, MD 21078
Ph 410-939-2343 Fax 410-939-2817
Email JM@GeneralResonance.com

Abstract

Albert Einstein was a father of the quantum revolution, however he insisted to his last days that quantum mechanics was an “incomplete” theory and that something had been missed – “hidden variables”. **Einstein’s hidden variables have now been found.**

This significant advance in the foundations of quantum mechanics was recently announced at annual meetings of Materials Science & Technology, the American Physical Society, SPIE Optics and Photonics, and the Physical Society of Japan. This ongoing work, which has thus far identified seven (7) new variables and three (3) new universal constants, has significant implications for the physics, chemistry and biology of water.

The first variable to be identified was a time variable which had been omitted from Planck’s famous quantum formula due to a mathematical inadvertence. Upon restoration of the missing time variable, Planck’s complete formula was discovered to be “ $E = h \square t_m \nu$ ”, where “ E ” is energy, “ $h \square$ ” is Planck’s universal energy constant (6.626×10^{-34} Joules/oscillation), “ t_m ” is measurement time, and “ ν ” is frequency. A sub-photon elementary particle of light was revealed, namely a single oscillation of light (see www.EinsteinsHiddenVariables.com). The constant and fundamental mass and momentum of this particle have been calculated, providing a clear description for the conservation of mass, momentum and energy of light over a change in time or space. The classical limit has thus been pushed to the lowest possible energy levels, allowing the derivation of Planck’s energy constant from first principles of position, time, and mass, consistent with classical mechanics.

Implications for the behavior of water are profound. The previous limitations on the effects of “thermal” electromagnetic energy in the KHz, GHz, and THz regions have been shown to be artifacts of the previously hidden variables and constants: previous calculations of “photon” energies were based on a hidden and fixed value for the missing time variable. At least three (3) photochemical mechanisms for the **nonthermal** effects of radio, microwave and infrared energy on water have been identified thus far. Experimental studies on the resonant nonthermal effects of these lower frequency electromagnetic waves confirm the predictions of the recent advance in the foundations of quantum mechanics.