# ESSAY 112: THE MAJOR ECE ADVANCES MADE IN QUANTUM MECHANICS: FELKER'S CHAPTER THREE

Written by Myron Evans and Narrated by Robert Cheshire

These are ably described by Laurence Felker's "The Evans Equations of Unified Field Theory", (UFT302 and Abramis 2007, translated into Spanish by Alex Hill on www.aias.us) chapter three. The Spanish translation of this chapter by Alex Hill is immensely popular. It is currently being read 18,160 times a year from the combined ECE sites, and it has sustained this popularity since about 2005 when it was first written. So this chapter three has been read in English and Spanish at least a quarter of a million times in the past decade, and will be for the foreseeable future. This suggests that it should be made into broadcasts and lectures posted on the ECE sites and elsewhere.

The chapter records the initial major advances in quantum mechanics made from 2003 to 2005 by ECE theory. It is known from the scientometrics that ECE made a meteoric, delta function impact, interest increased very rapidly to a high sustained plateau which will also be sustained into the indefinite future. During these initial stages the wave equation of the generally covariant unified field theory was discovered in UFT2. The discovery was based on the very fundamental tetrad postulate of Cartan geometry and Felker in his chapter three clearly describes the meaning of the tetrad using diagrams. The ECE wave equation was shown from 2003 to 2005 to reduce to all the main equations of quantum mechanics, notably the Schroedinger equation. The Bohr / Heisenberg indeterminacy was discarded almost immediately because ECE is based on geometry, and because the Croca group had already shown in copious detail that the indeterminacy principle catastrophically fails the test of incisive experiments.

A new geometrical interpretation of the commutator equations of quantum mechanics was made from 2003 to 2005, one which does not use the Heisenberg indeterminacy principle, which asserts that things can be absolutely unknowable and which discards Baconian science. A major leap backwards. It has been completely refuted in papers such as UFT175, later in the ECE series. Felker ably describes the simplification of quantum mechanics brought about by the early ECE theory of 2003 to 2005. During these years the Dirac equation was derived from geometry, and was later developed in the fermion equation. In UFT175 the Pauli exclusion principle was derived form Cartan geometry, and in UFT177 a new force equation of quantum mechanics was inferred.

The popularity of chapter three is due to the fact that Felker also describes the history of the subject clearly, and also the historic unification of quantum mechanics and general relativity which first occurred in 2003 - 2005. In these years the Aharonov Bohm and other non local effects were explained in what later developed into the vacuum ECE theory. It has become obvious that the Bohr / Heisenberg interpretation is hugely over complicated, and there can be no experimental evidence for indeterminacy by definition. The reason is that indeterminacy denies knowledge itself by asserting that events on the atomic scale are absolutely unknowable. ECE discarded this and Felker describes the ECE philosophy ably. After the initial major discoveries by Planck and Einstein, the development of the old quantum theory was concentrated mainly in the Sommerfeld group in Muenich. Sommerfeld was the first to develop relativistic quantum mechanics using the Sommerfeld hamiltonian to extend the Bohr atom to special relativity. Heisenberg and Pauli were students of Sommerfeld in this group. Debye was also part of the group and later suggested a problem to Erwin Schroedinger, appointed in 1921 as the professor of theoretical physics in the University of Zuerich. Debye was then working across the road at ETH Zuerich. This became the Schroedinger equation. The latter does not rely on indeterminacy, rejected by Einstein,

Schroedinger and many others. Felker ably described how the Schroedinger equation emerges from the ECE wave equation in the non relativistic quantum limit. I think that these clear explanations contribute to the popularity of the chapter.

ECE has also made the major contribution of ending the endless: the debate between the deterministic and Copenhagen interpretations of quantum mechanics. UFT175 is such a clear refutation of indeterminacy that it has never been challenged since it appeared.