

1154-81-466

**Tepper L Gill\***, 2300 6th St NW, Room 3010 LKD, Washington, DC 20059. *The Feynman Formulation of Quantum Mechanics.*

In this talk I will introduce a new Hilbert space  $KS^2[\mathbb{R}^n]$ , that is natural for the Feynman formulation of quantum theory. This space makes it possible to preserve all the physically intuitive and computational advantages of Feynman and to represent the Heisenberg and Schrödinger formulations. It is one of a new family  $KS^p[\mathbb{R}^n]$ , of Banach spaces which contain the HK-integrable functions and contain the  $L^p$  spaces as continuous dense and compact embeddings. These spaces also contain the space of test functions as a continuous embedding. In this talk, I will show in what sense that the space  $KS^2[\mathbb{R}^n]$  was designed for the Feynman formulation of quantum theory. (Received September 04, 2019)