The realistic interpretation of quantum mechanics

The interpretation of the wave function in quantum mechanics has been a subject for debate ever since quantum mechanics was established. There are many interpretations of quantum mechanics and the dominant one is the Copenhagen interpretation where the wave function is a mere mathematical description. After many years of research in quantum information and teaching of quantum mechanics, the author gradually formulated his own interpretation, a realistic interpretation (REIN) of quantum mechanics. In this keynote talk, the author will present in details the main points of the REIN. In particular, an explanation of the measurement is given. An encounter delayed choice experiment is described. In many aspects, REIN is more natural than other interpretation. Comparisons with other interpretations will also be discussed.

Biography
Gui Lu Long is a Professor at Tsinghua University, fellow of IoP (UK) and fellow of APS (US). He is the current President of Associations of Asian Pacific Physical Societies and was Vice-Chair of C13 of IUPAP during 2015–2017. He received his BSc from Shandong University in 1982 and PhD from Tsinghua University in 1987 respectively. He has been working in Tsinghua since 1987. During 1989-1993 he was a Research Fellow in the University of Sussex in UK. He published more 300 refereed papers and has more than 14000 citations in Google-Scholar.

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