# Joint CQSE & CASTS Seminar Dec. 11, 2020 (Friday)

: 14:30~15:30 Time

Place : Rm104, New Physics Building

• Speaker: Prof. Yeu-Chung Lin 林育中

Dept. of Physics, NTU 臺大物理系訪問學者

: Quantum Finance Title

▲ The seminar is also open to non-NTU members; hence all participents must wear a mask. (Following Fall and Winter Precautionary Measures)

\*\*Sponsored by Center for Quantum Science and Engineering (CQSE) 量子科學與工程研究中心 and Center for Advanced Study in Theoretical Sciences (CASTS) 理論科學高等研究中心, NTU \*\*Course: 109-1 (Phys8146) Applications of Quantum Computation

# **Joint CQSE and CASTS Seminar**

# 2020 December 11, Friday

TIME Dec. 11, 2020, 2:30~3:30pm

TITLE Quantum Finance SPEAKER Prof. Yeu-Chung Lin

Visiting Professor, Dept. of Physics, NTU

PLACE Rm104, Chin-Pao Yang Lecture Hall,

CCMS & New Physics Building, NTU

### **Abstract:**

A brief introduction to the applications of quantum computing is given. The subfield quantum finance is then elaborated. Option is chosen as an example of quantum finance applications. The definition of option and Black-Sholes-Merton model are described. In the counter part of quantum computing, however, different modeling of asset distribution is required, and hence Artificial Neural Networks and quantum Generative Adversarial Networks are introduced. It is concluded that domain knowledge plays an important role in the QC applications.

### **Biography Brief:**



## 林育中 Yeu-Chung Lin

現為 DIGITIMES 顧問,1988 年獲物理學博士學位, 任教於中央大學,後轉往科技產業發展。曾任茂德科技董 事及副總、普天茂德科技總經理、康帝科技總經理等職 位。曾於 Taiwan Semicon 任諮詢委員,主持黃光論壇。 2001~2002 獲選為台灣半導體產業協會監事、監事長。現 在於台大物理系訪問研究,主要研究領域為凝態物理材料 及量子計算。

### - N O T I C E -

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