



### 鐘元良 助理教授

Y.L. Zhong

物理系助理教授

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### 經歷

2006, 9 ~ 2007, 2

日本 NTT Basic Research Laboratories客員研究員.

2006, 9 ~ 2007, 2

東京理科大學博士後研究員.

2004, 8 ~ 2006, 8

日本 NTT Basic Research Laboratories, 電子自旋元件研究組 博士後研究.

2003, 1 ~ 2004, 8,

中央研究院物理所博士後研究.

### 現職

物理系助理教授

### 專長

凝態物理 (Condensed matter physics)

低溫物理實驗 (Low temperature physics experiment)

介觀物理實驗 (Mesoscopic physics experiment)

量子元件 (Quantum electronic devices)

奈米技術 (Nanotechnology)

奈米碳管 (Carbon nanotubes)

### 研究領域

介觀物理 (Mesoscopic physics)

量子傳輸 (Quantum transport)

奈米碳管 (Carbon nanotubes)

石墨薄膜及碳元素相關材料. (Graphene and Carbon related material)

### 可能之應用

新一代的電子元件和感測器等之應用.Novel electronic devices and sensors.

### 個人研究成果 (Selected paper 5 篇 )

1、 "Observation of a linear mean-free-path dependence of the electron-phonon scattering rate in thick AuPd films", Y.L. Zhong and J.J. Lin, *Phys. Rev. Lett.* **80**, 588(1998). (SCI)

2、 "Electron-electron scattering times in low-diffusivity thick RuO<sub>2</sub> and IrO<sub>2</sub> films", J.J. Lin, W.Xu, Y.L. Zhong, J.H. Huang and Y.S. Huang, *Phys Rev. B?* **59**, 344(1999). (SCI)

3、 "Effect of annealing on electron dephasing in three-dimensional polycrystalline disordered metals", J.J. Lin, Y.L. Zhong, and T.J. Li, *Europhys. Lett.* **57**, 872 (2002). (SCI)

4、 "Electronic transport in insulating AlPdRe quasicrystals", ? Ralph Rosenbaum, Tim Murphy, Bruce Brandt, ?C.R. Wang, Y.L. Zhong, S. W. Wu , S.T. Lin,? and J.J. Lin, *J. Phys.: Condens*

Matter 16, 821(2004). (SCI)

5、"Superconducting proximity effect in single-walled carbon nanotubes between NbN electrodes", Y.L. Zhong, T. Akazaki, K. Kanzaki, Y. Kobayashi and H. Takayanagi, Sci. Tech. Adv. Mater. 7, S78(2006). (SCI)