

## 國立清華大學第 27 屆新進人員研究獎得獎人簡介



物理學系 徐瑋廷助理教授

徐瑋廷博士自 2020 年 8 月加入國立清華大學物理系擔任助理教授，並建立了量子材料物理實驗室，專注於低維度半導體的前沿研究。團隊的研究重點在透過尖端光譜技術探索半導體量子點、稀磁性半導體、以及二維量子超材料中的新穎物理現象，特別是自旋/能谷/層層自旋等多重物理自由度。在到任清華大學的期間，徐老師團隊與合作團隊的研究成果已多次發表在高影響力期刊上，包括：Nature Materials、Science Advances、Nano Letters 等國際知名學術期刊，而團隊學生更在研討會中斬獲了許多獎項。研究團隊的目標除了旨在解決凡德瓦量子物質領域遇到的瓶頸之外，未來也將透過新建立的高壓顯微光譜系統進行更細緻的物性研究，為台灣的基礎研究開創一條嶄新的道路。徐老師感謝家人一直以來的支持，此次獲獎不僅是個人的努力，更是屬於家人和實驗室大家庭的共同榮耀。

Professor Wei-Ting Hsu has joined the Department of Physics at National Tsing Hua University (NTHU) in August 2020, where he has since established the Quantum Material Physics Laboratory, focusing on cutting-edge research in low-dimensional semiconductors. Leveraging the advanced spectroscopic techniques, the team's research primarily explores novel physical phenomena in semiconductor quantum dots, diluted magnetic semiconductors, and two-dimensional quantum metamaterials, with a particular focus on distinct physical degrees of freedom such as spin, valley, and layer pseudospin. During this period at NTHU, Prof. Hsu and his research team have published many fruitful research results in high-impact journals, including: *Nature Materials*, *Science Advances*, *Nano Letters*, and more. Furthermore, students from his team have won multiple awards at conferences. In addition to tackling the current bottlenecks encountered in the field of van der Waals quantum matter, the established high-pressure microscope system has the potential to open up a new avenue and bring long-term advances to the fundamental research in Taiwan. Prof. Hsu has expressed his heartfelt gratitude to his family for their unwavering support. This award is not only a recognition of personal efforts, but also a shared honor with his family and team members.