

# 參與國際會議 開拓國際視野

文稿整理／林珮雯

為強化本院師生國際競爭力，本院鼓勵研究生積極出席國際會議，以增進學生國際視野與跨文化溝通能力，亦可增加本校未來國際合作的機會，提升台灣於國際上的能見度。以下邀請幾位參與國際頂尖會議的同學分享心得：

## 發表論文：Towards Understanding Cross Resolution Feature Matching for Surveillance Face Recognition

**作者：**Chiawei Kuo, Yi-Ting Tsai, Hong-Han Shuai, Yi-ren Ye, Ching-Chun Huang

**指導教授：**黃敬群老師 帥宏翰老師

**國際會議名稱：**30th ACM International Conference on Multimedia (ACM MM 2022)

**該會議重要性：**ACM MM 於 1993 年創辦至今，為多媒體領域中頂尖的國際會議之一，本年度共有 2473 篇論文提交，其中有 690 篇被接受，接受率為 27.9%。

**蔡宜庭同學心得分享：**此論文為團隊共同努力的成果，很感謝黃老師與帥老師的指導，以及玉山銀行的夥伴在討論過程中給予我們很多想法及建議。此論文探討用於監控場景人臉識別的跨解析度特徵匹配，在多個人臉資料庫上都得到非常好的效果。因為疫情的關係，雖然我們只能以線上方式參加 ACM MM 2022，但仍然透過和其他學

者的交流中，得到許多經驗分享及收穫。

## 發表論文：MAtt: A Manifold Attention Network for EEG Decoding

**作者：**Yue-Ting Pan, Jing-Lun Chou, Chun-Shu Wei

**指導教授：**魏群樹老師

**國際會議名稱：**Thirty-sixth Conference on Neural Information Processing Systems, (NeurIPS 2022)

**該會議重要性：**NeurIPS 與 ICML 以及 ICLR 並稱人工智慧三大頂尖會議之一，目前在 google scholar 的人工智慧領域的國際會議排名第二，僅次於 ICLR。NeurIPS 是近代機器學習及計算神經科學等領域中指標性的會議。NeurIPS 2022 共有 10411 篇論文投稿，2672 篇論文被接受，接受率約為 25.6%。

**潘岳廷同學心得分享：**萬分感謝老師在研究方面的指導還有建議，這是我第一篇的論文，也是我的碩論，我學到了好多有關論文撰寫以及做研究該要注意的事情，讓我可以做出更加完善的研究。此次飛往紐奧良參與國際盛會，讓我見識到了好多來自世界各地知名的研究者，可以跟他們共同討論研究相關的主題，互相腦力激盪激發出

新的想法以及創意是我最大的收穫。能夠與這麼多厲害的學者分享自己的研究著實是一件令人振奮的事情。希望未來有機會可以繼續參與國際學術會議，增進自己的眼界。

## 發表論文：Make an Omelette with Breaking Eggs: Zero-Shot Learning for Novel Attribute Synthesis

**作者：**李育瑄、趙梓吟、黃敬群、陳品諭、Yu-Hsuan Li, Tzu-Yin Chao, Ching-Chun Huang, Pin-Yu Chen, Wei-Chen Chiu

**指導教授：**黃敬群老師、邱維辰老師

**國際會議名稱：**Thirty-sixth Conference on Neural Information Processing Systems, (NeurIPS 2022)

**該會議重要性：**NeurIPS 為國際頂級計算神經科學會議，在機器學習領域內極具影響力，每年吸引來自各國的企業大廠以及學術單位參加。2022 年 NeurIPS 有 10,411 篇投稿，最後收錄其中 25.6% 的論文。

**李育瑄同學心得分享：**很榮幸也很開心有機會把研究成果展現到大家的視野中。雖然在研究過程中常遭遇挫折與迷茫，但從題目發想到最後參加大會展現，這中間的每一個過程環節都是獨特且令人印象深刻的經驗，極其幸運在人生中可以擁有這樣的回憶，也非常感謝指導老師們的教導指引以及研究夥伴的討論支持！

## 發表論文：Reward-Biased Maximum Likelihood Estimation for Neural Contextual Bandits: A Distributional Learning Perspective

**作者：**Yu-Heng Hung, Ping-Chun Hsieh

**指導教授：**謝秉均老師

**國際會議：**AAAI Conference on Artificial Intelligence (AAAI), 2023

**該會議重要性：**AAAI 是人工智慧中頂尖的會議之一，今年共有 8777 篇論文投稿，1,721 篇論文被

接受 (接受率為 19.6%)，會議涵蓋的範圍極廣，包含機器學習，強化學習，自然語言處理以及電腦視覺等熱門的領域。

**洪鈺恆同學心得：**這次是我第一次參加實體會議，和線上會議不同的體驗是跟世界各地的研究人員的接觸變多了，也遇到了很多跟自己做類似研究的人，交流的過程不僅收穫良多而且有種自己並不是孤單的感覺。除此之外也很開心能在演講和海報展覽的時間分享自己在做的研究，感謝指導教授這次的幫忙以及提供我出國開會的經費，長達約一年半的研究終於在這次的 AAAI 會議被認可真的蠻感動的，中間多次和教授熬夜討論和改論文都是令我印象深刻的過程。

## 發表論文：於棋盤類遊戲中目標達成問題之新方法

### A Novel Approach to Solving Goal-Achieving Problems for Board Games

**作者：**Chung-Chin Shih, Ti-Rong Wu, Ting Han Wei, and I-Chen Wu

**指導教授：**吳毅成教授 I-Chen Wu

**國際會議名稱：**The 36th AAAI Conference on Artificial Intelligence

**該會議重要性：**AAAI Conference on Artificial Intelligence 是人工智慧領域公認的國際權威性頂級會議，旨在促進人工智慧 (AI) 研究人員、從業者、科學家和工程師之間的科學交流。本年度 (AAAI-22) 共有 9020 篇論文被審閱，其中共有 1349 篇被接受，接受率為 15%。

**施仲晉同學心得分享：**本論文探討棋盤遊戲中的目標達成問題，並以 Hex 和圍棋為例。此論文曾被拒絕兩次，經不斷改進內容後，終於在 AAAI-22 會議中被接受，也是我第一篇被接受的國際頂尖會議論文。感謝老師與其他作者夥伴的共同努力。很可惜的是因疫情該會議轉為線上會議，無法與各國與會人士面對面交流，但也發現到線上會議的有趣之處，每位參與者可以用虛擬形象 (avatar) 互相交流。我也在線上海報展中與幾位觀眾互動，雖不是實體會議，但仍獲得不少收穫，非常珍惜這次難忘的經驗。



# Participating in International Conferences would Broaden a Global Vision

The College of Computer Science, NYCU, motivates graduate students to actively participate in international conferences to improve the global competence of its faculty and students. This not only enhances students' cross-cultural communication skills and international perspectives, but also leads to more prospects for future international collaborations and increases Taiwan's visibility on the global stage.

Here are some insights shared by fellow students who participated in top international conferences.

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## Title: Towards Understanding Cross Resolution Feature Matching for Surveillance Face Recognition

**Author: Chiawei Kuo, Yi-Ting Tsai, Hong-Han Shuai, Yi-ren Ye, Ching-Chun Huang**

**Advisor: Dr. Ching-Chun Huang, Dr. Hong-Han Shuai**

**International Conference: 30th ACM International Conference on Multimedia (ACM MM 2022)**

**The Significance of the conference:** ACM MM, established in 1993, stands as a leading international conference in the multimedia field. Out of the 2473 papers submitted this year, a mere 690 were accepted, yielding an acceptance rate of 27.9%.

**The experience of Yi-Ting Tsai:** This paper was produced as a result of the team's collaborative efforts. We are very grateful for the guidance of Professor Huang and Professor Shuai, as well as the numerous ideas and suggestions provided by our partners at E.SUN Bank during the discussion. The core concept of this paper is to use the cross-resolution feature matching to enhance surveillance face recognition, which has demonstrated impressive outcomes across various face databases. Although our participation in ACM MM 2022 was limited to the online format due to the pandemic, we nevertheless had the opportunity to interact with other scholars and gain valuable insights and knowledge through our exchanges.

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## Title: MAtt: A Manifold Attention Network for EEG Decoding

**Author: Yue-Ting Pan, Jing-Lun Chou, Chun-Shu Wei**

**Advisor: Dr. Chun-Shu Wei**

**International Conference:** Thirty-sixth Conference on Neural Information Processing Systems, (NeurIPS 2022)

**The Significance of the conference:** NeurIPS, ICML, and ICLR are the top three conferences in the field of artificial intelligence. NeurIPS is currently ranked second among international AI conferences on Google Scholar, with only ICLR ahead of it. NeurIPS is a leading machine learning and computational neuroscience conference. In 2022, a total of 10,411 papers were submitted to NeurIPS, and 2,672 were accepted, resulting in an acceptance rate of approximately 25.6%.

**The experience of Yue-Ting Pan:** I am very grateful for Professor Wei's guidance and advice. This is my first paper and also my master's thesis. I have learned a lot about writing papers and paying attention to details when doing research, which helps me to conduct more comprehensive research. Attending the international conference in New Orleans gave me the chance to connect with numerous eminent researchers worldwide. My biggest achievement was to discuss research-related topics with them, which allowed me to generate novel insights and spark creativity. I was thrilled to have the opportunity to share my research with such distinguished scholars. I look forward to participating in more international academic conferences in the future to broaden my horizons.

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## Title: Make an Omelette with Breaking Eggs: Zero-Shot Learning for Novel Attribute Synthesis

**Author: Yu-Hsuan Li, Tzu-Yin Chao, Ching-Chun Huang, Pin-Yu Chen, Wei-Chen Chiu**

**Advisor: Dr. Ching-Chun Huang, Dr. Wei-Chen Chiu**

## International Conference: Thirty-sixth Conference on Neural Information Processing Systems, (NeurIPS 2022)

**The Significance of the conference:** NeurIPS is a top international conference on computational neuroscience and has a significant influence in the field of machine learning. It attracts companies and academic institutions from various countries every year. In 2022, there were a total of 10,411 full paper submissions to NeurIPS, of which the program committee accepted 25.6% for presentation at the conference.

**The experience of Yu-Hsuan Li:** I am honored and happy to have the opportunity to present my research results to everyone. Despite facing setbacks and confusion during the research process, each stage from identifying the topic to attending the conference was a distinctive and unforgettable experience. I consider myself extremely lucky to have such experiences in my life, and I deeply appreciate the assistance and encouragement provided by my advisors and research fellows.

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## Title: Reward-Biased Maximum Likelihood Estimation for Neural Contextual Bandits: A Distributional Learning Perspective

**Author: Yu-Heng Hung, Ping-Chun Hsieh**

**Advisor: Dr. Ping-Chun Hsieh**

**International Conference: AAI Conference on Artificial Intelligence, 2023**

**The Significance of the conference:** The AAI Conference on Artificial Intelligence (AAI) is one of the leading international academic conferences in artificial intelligence. In this year's AAI-23 conference, 8,777 papers were submitted, and 1,721 papers were accepted, with an acceptance rate of 19.6%. The conference covers a wide range of topics, including machine learning, reinforcement learning, natural language processing, and computer vision, etc.

**The experience of Yu-Heng Hung:** Attending a physical conference for the first time has been a unique experience for me, as it provided me with more opportunities to interact with researchers from all over the world. Meeting other people who are also working on similar research topics not only gave me valuable insights but also made me feel like part of a larger community. Additionally, I was thrilled to have

the chance to present my research during the poster and presentation sessions. I am grateful to my advisor for his support and for providing me with the funding to attend this conference. After a year and a half of hard work, having my paper accepted by the AAI conference has been a truly touching experience. The late nights spent discussing and revising my work with my advisor have been memorable moments that I will cherish.

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## Title: A Novel Approach to Solving Goal-Achieving Problems for Board Games

**Author: Chung-Chin Shih, Ti-Rong Wu, Ting Han Wei, and I-Chen Wu**

**Advisor: I-Chen Wu**

**International Conference: The 36th AAI Conference on Artificial Intelligence**

**The Significance of the conference:** The AAI-22 Conference on Artificial Intelligence is a highly acclaimed event in the field of AI that aims to facilitate scientific communication among AI researchers, practitioners, scientists, and engineers. This year's conference (AAI-22) had a total of 9020 papers reviewed, of which 1349 were accepted, resulting in an acceptance rate of 15%.

**The experience of Chung-Chin Shih:** This paper focuses on goal-achieving problems in board games, taking Hex and Go as examples. Despite encountering two rejections, the paper was eventually accepted at the AAI-22 conference after undergoing multiple revisions. This is my first paper accepted at a top-tier international conference, and I would like to express my appreciation to my advisor and co-authors for their collaborative efforts. Regrettably, due to the pandemic, the conference was conducted virtually, thereby eliminating the possibility of in-person interactions with attendees from different parts of the world. Nevertheless, I discovered that online conferences possess intriguing features, such as the utilization of virtual avatars to promote interaction among attendees. During the online poster exhibition, I interacted with some of the audience and gained valuable insights from the conference. Although it didn't turn out to be the in-person conference that I had expected, it was still a memorable experience.