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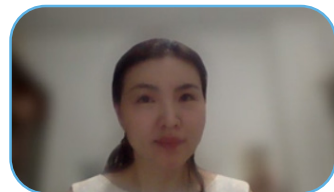
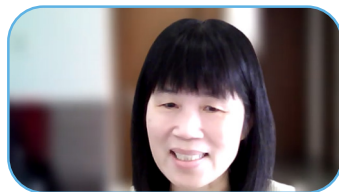
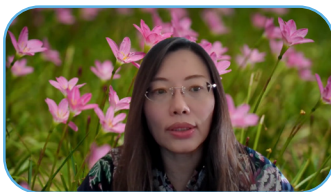


澳門高等教育的現狀與未來

The Current Situation and Future of Higher Education in Macao

澳門大學澳門研究中心和教育學院於 9 月 29 日在線舉行「澳門大學 40 週年校慶——澳門高等教育的現狀與未來研討會」，邀請專家學者就不同議題探討澳門高等教育的发展、現況及未來的路向。會上，學者們就不同的角度，從過去到未來、從宏觀到微觀、從概念到具體進行深入探討，相關論文將會在《澳門研究》中刊登。本會議由教育學院院長王闖教授和澳門研究中心主任林玉鳳副教授共同主持。

The University of Macau (UM) Centre for Macau Studies (CMS) and Faculty of Education (FED) held an online conference titled “Celebrating the 40th Anniversary of the University of Macau: Current Situation and Future of Higher Education in Macao” on 29 September. During the event, experts and scholars discussed various issues related to the current and future development of higher education in Macao. Scholars discussed the conference theme from different perspectives - from the past to the future, from macro to micro, from conceptual ideas to concrete practices. Articles will be published in the *Journal of Macau Studies*. The conference was chaired by Prof. Chuang WANG, the Dean of the Faculty of Education and Prof. Agnes LAM, Director of Centre for Macau Studies.



由左上起：澳門城市大學李樹英協理副校長、澳門大學教育學院王闖院長、廣州大學劉暉教授、澳門大學社會科學學院盛力副院長（學術）、澳門大學法學院蔣朝陽教授、澳門大學鄭振偉副教授、澳門理工學院張紅峰副教授、澳門城市大學彭俊助理教授、澳門大學向天屏助理教授、澳門大學謝金枝助理教授、深圳大學李悅博士、澳門大學澳門研究中心林玉鳳主任。From top-left corner: Prof. Shu Ying LI, Pro-rector of the City University of Macau, Prof. Chuang WANG, the Dean of the UM Faculty of Education, Prof. Hui LIU, Professor of Guangzhou University, Prof. Li SHENG, Associate Dean of UM Faculty of Social Sciences, Prof. Chaoyang JIANG, Professor of UM Faculty of Law, Prof. Chun Wai CHENG, Associate Professor of UM Faculty of Education, Prof. Hongfeng ZHANG, Associate Professor of the Macao Polytechnic Institute, Prof. Jun PENG, Assistant Professor of the City University of Macau, Prof. Elizabeth Tien Ping HSIANG, Assistant Professor of UM Faculty of Education, Prof. Jin-Jy SHIEH, Assistant Professor of UM Faculty of Education, Dr Yue Li, Associate Researcher of Shenzhen University, Prof. Agnes LAM, Director of UM Centre for Macau Studies.

分組專題一：澳門高等教育的過去與未來

Section 1: The Past and the Future of Macao Higher Education

1

講題 Topic：百年以來澳門的師範教育 A Century of Teacher Education in Macao

澳門大學教育學院鄭振偉副教授

Prof. Chun Wai CHENG, Associate Professor of the UM Faculty of Education

20 世紀 20 年代，澳門已有師範學校，但具體不詳，30 年代有學校向政府申辦師範課程。40 年代前後，廣東的一些師範學校因抗戰遷澳，到 1949 年的時候又有一些學校或高校遷至澳門辦學，並提供師範課程。至於本地的聖若瑟中學、聖公會的屬校在 50 至 70 年代陸續開辦簡易或幼稚師範課程，但部分遷澳並提供師範課程的學校其後陸續結束。60 年有官辦的師範學校，卻是葡語授課，學生人數極少，及後更曾有一段時間處於停頓狀態。概括而言，聖若瑟中學於 50 年代開始的師範培訓課程、中華教育會於 80 年代初推動的華師大教育專業課程，以及澳門大學教育學院於 80 年代末開始的學位課程，都是 20 世紀師範教育的濃墨重彩。

In the 1920s, there were already teachers' training schools in Macao, but the details are not known, and in the 1930s, some schools applied to the government to provide teachers' training programs. Around the 1940s, some teachers' training schools in Guangdong were relocated to Macao due to the resistance war against Japanese aggression, and in 1949, some schools or colleges moved to Macao and offered teachers' training programs. During the 1950s and 1970s, simplified teachers' training programs or programs for training early childhood teachers were offered by the local Colegio de S. José and Anglican-affiliated schools, but some of the schools that had been relocated to Macao and offered teachers' training programs were subsequently closed. In the 1960s, there was a government-run teachers' training school, but it was taught in Portuguese and had very few students, and there was a period of suspension afterwards. In summary, the teacher training program at the Colegio de S. José since the 1950s, the professional teacher education program at the South China Normal University, which was initiated by the Chinese Educators Association of Macau in the early 1980s, and the degree program launched by the Faculty of Education of the University of Macau in the late 1980s are the highlights of teacher education in the 20th century in Macao.

2

講題 Topic：澳門高等教育的現狀、挑戰與對策 The Current Situation, Challenges and Countermeasures of Higher Education in Macao

廣州大學教育學院（師範學院）劉暉教授

Prof. Hui LIU, Professor of the School of Education (Teachers College) of Guangzhou University

澳門高等教育經過 40 年的發展，業已形成公立與私立並列的舉辦體制，綜合性大學與單科大學並存的科類結構，東西方大學管理要素相容的治理方式。對接行業的小而精的學科專業特色，體現了澳門獨有的文化特色與體制優勢。當然，在粵港澳大灣區戰略規劃的新格局、新要求中，澳門高等教育面臨著新問題與新挑戰。未來的澳門高等教育發展對策基於三個因素：一是澳門產業結構的調整與更新；二是粵港澳大灣區戰略（橫琴粵澳深度合作區）佈局的持續影響；三是澳門高等教育未來在粵港澳大灣區高等教育融合發展中的定位。

Macao higher education has made great progress in the past 40 years. Higher education in Macao has formed a parallel public and private organization systems, which are held in comprehensive university and single-disciplinary university coexisting in the discipline structure, in a governance style compatible with the management elements of the universities in the East and the West. The small and exquisite academic specialties that are aligned with the industries embody the unique cultural characteristics and system advantages of Macao. Of course, in the new pattern and requirements of the strategic planning of the Guangdong-Hong Kong-Macao Greater Bay Area, higher education in Macao is facing new problems and challenges. The future development strategies of higher education in Macao should be based on three factors: the first is the adjustment and renewal of the industrial structure of Macao; the second is the continuous impact of the layout of the Guangdong-Hong Kong-Macao Greater Bay Area Strategy (the Guangdong-Macao Intensive Cooperation Zone in Hengqin) and the third is the future positioning of Macao higher education in the integrated development of higher education in the Guangdong-Hong Kong-Macao Greater Bay Area.

3

講題 Topic : 澳門現代高等教育治理：模式變遷與政策回應 The Governance of Modern Higher Education in Macao : Model Changes and Policy Responses

澳門理工學院人文及社會科學高等學校蘇少丹博士、張紅峰副教授

Shaodan SU, PhD student at the Macao Polytechnic Institute; Prof. Hongfeng ZHANG, Associate Professor of the School of Humanities and Social Sciences of Macao Polytechnic Institute;

澳門現代高等教育自東亞大學始已屆 40 年，其治理模式經歷了從「大學自治」到「政府管控」，再到「高校—政府—社會共治」的過程。治理模式的變遷蘊含著高等教育利益相關主體間的均衡、矛盾協調以及基於此的政策回應。在當前澳門高等教育治理模式之下，相應政策成效顯現，高校經費有所保障、法律法規逐步完善、中介作用得以發揮。但也存在著不可回避的困境，高校自治與政府管治間存在矛盾張力、相關利益主體話語權不均、質量保障制度社會約束不足等。澳門高教治理的政策調整須從系統整體出發，探尋差異的偶然性與統一的必然性，回歸學術本身之作為存在之理的邏輯，構建可持續發展的治理體系。

Modern higher education in Macao has been around for 40 years since the University of East Asia. Its governance model has experienced a process from “university autonomy” to “government control”, and then to “university-government-society shared governance”. The change of governance model implies the balance, contradiction, and coordination among the stakeholders of higher education, and the policy responses based on this. Under the current governance model of higher education in Macao, the corresponding policies have been effective, university funding has been guaranteed, laws and regulations have been gradually improved, and the intermediary role has been brought into play. But there are also unavoidable dilemmas. There are tensions between university autonomy and government regulation, the discourse power of related stakeholders is uneven, and the social constraints are insufficient in the quality assurance system. The policy adjustment of higher education governance in Macao should be based on the overall system, exploring the contingency of differences and the inevitability of unity, returning to the logic of academia itself as the reason of existence, and constructing a sustainable governance system.

分組專題二：新視野下的澳門高等教育**Section 2 : Macao Higher Education in a New Perspective**

1

講題 Topic : 琴澳深度合作區大背景下澳門高等教育如何促進澳門經濟產業適度多元化**In the Context of the Guangdong-Macao Intensive Cooperation Zone in Hengqin, How Can Macao Higher Education Contribute to the Moderate Economic and Industrial Diversification in Macao?**

澳門城市大學協理副校長、教育發展研究所所長李樹英教授

Prof. Shu Ying LI, Pro-rector, Professor of the School of Education and Director of the Research Institute of Macau Education Development of the City University of Macau

澳門產業一向極度單一，極度依賴旅遊博彩業，這不利於澳門的長遠發展，但《橫琴粵澳深度合作區建設總體方案》在解決此困局上指明了方向。在「發展促進澳門經濟適度多元的新產業」一章中，《方案》提到要「促進境內外人才集聚」，而澳門高等教育就是人才聚集的蓄水池。具體來說，可利用橫琴的土地空間增進澳門高校的規模和學生人數，帶動和增進相關經濟的附加價值；通過既有課程的修訂、新課程的申報、課程佈局的調整、出台更多靈活的高等教育法規，吸引優秀的學生來澳；以橫琴新產業的發展機會，吸引他們留下。

Industries in Macao have always been extremely homogeneous, relying heavily on the tourism and gaming industries, which is not conducive to the long-term development of Macao. The “Master Plan of the Development of the Guangdong-Macao Intensive Cooperation Zone in Hengqin” provides a direction to solve this dilemma. In the chapter titled “Develop new industries to help promote Macao’s economic diversification”, the plan mentions the need to “promote talent aggregation from within and outside the territory”, and Macao higher education is a platform for talent aggregation. Specifically, we can use the land space in Hengqin to increase the scale and the number of students for the universities in Macao, so as to drive and increase the added value of the economy; attract outstanding students to Macao through the revision of existing courses, the introduction of new courses, curriculum

adjustments, and the introduction of more flexible higher education regulations; and attract them to stay with the development opportunities of Hengqin's new industries.

2

講題 Topic : 人文社會科學學科在澳門高等教育產學研互動中的優勢和策略

Advantages and Strategies of Humanities and Social Sciences Disciplines in the Interaction of Industries, Universities and Research Institutes in Macao Higher Education

澳門大學社會科學學院副院長（學術）盛力教授

Prof. Li SHENG, Professor and Associate Dean of the UM Faculty of Social Sciences

澳門的產學研合作主要以理工科為主，人文社會科學學科的並未受到相應的重視。通過對產學研合作的發展現狀和人文社會科學學科的各方面優勢的闡述，發現產學研合作與人文社會科學學科的發展密不可分。產學研合作的多個環節需要人文社會科學學科人才的加入；人文社會科學學科的發展也需要產學研合作的推動和促進。二者和諧並存的發展方式才能夠最大發揮產學研合作和人文社會科學學科的功能，從而增進人類的福祉，推動社會的進步。然而，與自然科學相比，社會科學還是存在一定的劣勢，諸如其理論系統繁雜而紊亂、實際應用層面較窄、知識轉化率很低等問題。正因如此，想要促進社會科學學科的發展，就要鼓勵社會科學跨學科化發展。

The disciplines of science and technology have been the main focus of the collaboration of industries, universities and research institutes in Macao, while little attention has been paid to the disciplines of humanities and social sciences. Based on the current development of the industry-university-research collaboration and the advantages of the humanities and social sciences disciplines, it is found that the two are inseparable. The participation of humanities and social sciences talents is much required in many aspects of industry-university-research cooperation and likewise, the promotion and facilitation of industry-academia-research cooperation contributes to the development of humanities and social sciences disciplines. It is only through the harmonious co-existence of the two, that their respective functions can be maximally fulfilled, thereby enhancing human welfare, and promoting social progress. However, compared to natural sciences, social sciences still have certain disadvantages, such as their complex and disorganized theoretical systems, narrower application scopes and lower knowledge transfer rate. Therefore, it is necessary to encourage interdisciplinary development in social sciences so as to promote the advancement of social science disciplines.

3

講題 Topic : 澳門高等教育與橫琴粵澳深度合作區的建設發展

Macao Higher Education and the Development of the Guangdong-Macao Intensive Cooperation Zone in Hengqin

澳門大學法學院中文法學碩士學位課程主任蔣朝陽教授

Prof. Chaoyang JIANG, Professor and Programme Coordinator of Master of Law (Chinese Language) of UM Faculty of Law

橫琴粵澳深度合作區對澳門未來的發展可起到積極的作用，澳門高等教育在其中擔當了重要的角色，包括：1) 聚焦合作區發展重點，擔當科研創新的角色；2) 聚焦合作區發展需要，培養合格人才；3) 為合作區建設發展提供智庫服務。圍繞深度合作區的建設發展，可優化澳門現有的高等教育政策，包括：1) 充分發揮“一國兩制”下澳門高等教育的優勢；2) 圍繞澳門經濟適度多元和合作區建設，完善高等院校科研創新激勵政策、建立鼓勵高等院校新學科建設和優化課程設置的激勵政策、建立鼓勵高等院校教研人員提供智庫服務的激勵政策；3) 優化完善澳門高等院校存量人才和人才引入的激勵措施。

The Guangdong-Macao Intensive Cooperation Zone in Hengqin can have a positive influence in the future development of Macao, in which Macao higher education plays an important role, including: 1) taking on the role in research and innovation with a focus on the key priorities for the development of the Cooperation Zone; 2) cultivating qualified talents to meet the development needs of the Cooperation Zone; 3) providing think-tank services for the development of the Cooperation Zone. In the context of the development of the Cooperation Zone, the existing policies on higher education in Macao can be optimized, including: 1) maximizing the advantages of higher education in Macao under the principle of “one country, two systems”; 2) improving the incentive policies

for research and innovation in higher education institutions, establishing incentive policies to encourage the establishment of new academic disciplines and to optimize the curriculum in higher education institutions, and establishing incentive policies to encourage faculty and researchers in higher education institutions to provide think-tank services; 3) optimizing and improving incentive measures to attract and retain talent in higher education institutions in Macao.

分組專題三：具體議題研討 Section 3 : Specific Issues

1 講題 Topic : 澳門大學生國情教育及其影響因素探究——基於整體變化評定模型的實證分析

A Study on the National Education of Macao College Students and its Influencing Factors: An Empirical Analysis Based on the General Model for Assessing Change

澳門城市大學教育學院課程主任彭俊助理教授、深圳大學基礎教育與教師發展研究中心副研究員李悅博士

Prof. Jun PENG, Assistant Professor and Coordinator for Master and Doctoral Programs of the School of Education of the City University of Macau; Dr. Yue LI, Associate Researcher at the Basic Education and Teacher's Development Research Centre of Shenzhen University

針對澳門在讀大學生國情教育現狀，基於大學影響力之整體變化評定模型，採用自編《澳門大學生國情教育影響因素問卷》，運用相關分析和分層回歸分析方法探討大學生國情教育學習期望、學習投入對於澳門大學生國家認同水平的影響。結果發現，澳門大學生國情教育整體呈現中上水平，具有內地教育經歷的學生其國情教育水平顯著高於未有內地教育經歷的學生，而在性別、教育程度、生源地等不同背景變項上未呈現群體差異。澳門大學生國情教育的期望、學習投入及國家認同間呈現顯著的正向相關，內地教育經歷、國情教育期望、校園環境支持、社會性人際互動和個人努力品質都是國家認同的影響因素，且學生的國情教育期望是其中最重要的影響因素。

Based on the General Model for Assessing Change in universities, this study adopted the self-administered "Questionnaire on Factors Influencing National Education of College Students in Macao" and used correlation analysis and hierarchical regression analysis to explore the impact of college students' national education learning expectations and learning engagement on the level of national identity of Macao college students. The results showed that the national education of Macao college students is at the upper middle level. The national education level of students with Mainland education experience was significantly higher than that of students without Mainland education experience, but no group differences were found in different background variables such as gender, education level and place of origin. There was a significant positive correlation between the expectation of national education, learning engagement and national identity of Macao college students. Mainland education experience, national education expectation, campus environment support, social interpersonal interaction and quality of personal effort were all the influencing factors of national identity, and the national education expectation of students was the most important one.

2 講題 Topic : 我們的高等教育培育了中小學需要的寫作教師了嗎？

Does Higher Education Prepare Writing Teachers Well for Primary and Secondary Schools?

澳門大學教育學院教育學學士學位課程統籌人（小學教育）向天屏助理教授

Prof. Elizabeth Tien Ping HSIANG, Assistant Professor and Programme Coordinator of Bachelor of Education Programme (Primary Education) of UM Faculty of Education

通過文獻分析法檢視五篇兩岸四地（北京、上海、香港、澳門與台北市）中小學寫作教學調查研究論文（包含識字與寫字教學）與八所大學（北京師範大學、華東師範大學、上海師範大學、香港中文大學、澳門大學、台灣師範大學、台北市立大學、台北教育大學）的十個中、小學語文師資培育課程。發現多數兩岸四地低小與初中教師認為自己並未接受足夠的寫字、寫作教學培訓；兩岸四地一至九年級語文教師平均每三至四週才會上一次作文課，因此教師運用各種寫作教學策略的時間與機會並不多；多數教師根據教科書內容進度發展寫作課程；十個師資培育課程中，真正專注於發展職前教師寫

作知能與寫作教學知能的科目與學分數有限，且有半數課程沒有一般寫作練習必修或必選課。本研究亦對高等教育師資培育的發展與後續研究提供建議。

This study was conducted by documentary research to examine five empirical research reports on writing instruction in primary and secondary schools (including literacy and writing instruction) in four cross-strait places (Beijing, Shanghai, Hong Kong, Macao, and Taipei City) and ten teacher education undergraduate programs in eight universities (Beijing Normal University, East China Normal University, Shanghai Normal University, Chinese University of Hong Kong, University of Macau, Taiwan Normal University, University of Taipei, and National Taipei University of Education). The findings revealed that most participants felt that they had not received sufficient training in writing and writing instruction; on average, teachers of grades 1-9 only had their essay writing class every three to four weeks, so teachers did not have much time and opportunities to use various writing instructional practices; most teachers developed their writing curriculum based on selected textbook series; and of the ten pre-service teacher training programs, only a limited number of subjects focused on developing their writing and writing instructional skills. Suggestions on the development of teacher education and further studies are also discussed.

3

講題 Topic：澳門高教本科生學習評核的模式：標準參照？常模參照？

Assessment Models for Undergraduate Students in Macao Higher Education: Criterion-referenced test? Norm-referenced test?

澳門大學教育學院謝金枝助理教授

Prof. Jin-Jy SHIEH, Assistant Professor of UM Faculty of Education

標準參照可了解個別學生在既定的標準下的表現、成績不需要與其他入比較，也沒有設定的成績分佈比例要求；該評核依據是事先訂定的標準；優點是可確定課程的價值，確保評估的內容與預期的學習成果（技能、知識）相同。常模參照依照曲線（學生在既定的成績分佈中的相對成就）來評分、學生需與同儕進行比較，是競爭性的；評核依據是同儕的表現；優點是避免直接對原始表現的優劣情形作出評斷、能就不同類型的測驗表現進行排序。究竟澳門高教本科生的學習評核應用標準參照還是常模參照？學者討論後認為可以同時採用，有關基本知識部分可用標準參照，而需要去對照其他人的部份可用常模參照，然而也涉及高校的政策問題。

Criterion-referenced test provides an understanding of a student's performance against established standards without the need to compare his/ her performance with others and without the requirement for a set percentage of grade distribution. It is based on pre-determined standards and has the advantage of determining the value of the curriculum and ensuring that the content of the assessment is the same as the intended learning outcomes (both skills and knowledge). Norm-referenced test is based on a curve, that is, the relative achievement of students in a given grade distribution. It is competitive in that students are compared with their peers. It has the advantage of avoiding direct judgments on the strengths and weakness of the original performance and of being able to rank performance on different types of tests. Should criterion-referenced test or norm-referenced test be applied to the assessment of undergraduate students in Macao higher education? After discussion, the scholars concluded that both assessment models could be adopted. The session on basic knowledge can be assessed using the criterion-referenced test while the section on the need to benchmark against others can be assessed using the norm-referenced test, but this will involve changing the policies adopted by different universities.

新冠疫情對本澳居民身心健康的影響的相關研究

Study on the Impact of the COVID-19 Pandemic on the Physical and Mental Health of Macao Residents

自 2019 年 12 月被首次發現起，新型冠狀病毒在短短四個月內已蔓延至全球 200 多個國家和地區，該病毒引發的疫情給全人類的身心健康帶來前所未有的挑戰。隨着疫情在社區中擴散，各地民眾相繼受到了來自疫情的直接和間接衝擊，伴之而來的抑鬱和焦慮水平，亦有不同程度的明顯增加。本澳的相關研究團隊也在本澳居民中觀察到類似的、由新冠疫情引發的直接和間接的對身心健康的衝擊。

根據團隊收集的數據，估算大約有 4.0% 和 10.5% 的澳門成人居民分別表現出對於新冠疫情的過分擔憂（coronavirus anxiety）和不受控制的強迫性思維（coronavirus obsession）；這些由直接衝擊帶來的精神症狀，也同時伴隨着較高水平的主觀痛苦、負面情緒、過度時間消耗等不良反應，並影響了個體的日常生活和工作。此外，由新冠疫情所帶來的一系列生活習慣的改變，也使本澳的成年居民經歷了家庭糾紛增加、與他人的友誼受影響、體重增加等新的壓力源，而這些壓力源同時對民眾帶來了抑鬱、焦慮等間接衝擊。相關團隊和研究如下：

Since its first detection in December 2019, the coronavirus disease has spread to more than 200 countries and territories worldwide in just four months, posing unprecedented challenges to the physical and mental health of the entire population. As the pandemic spreads through communities, people around the world are experiencing varying degrees of direct and indirect impact, as well as significant increases in levels of depression and anxiety. Similar direct and indirect shocks from the coronavirus pandemic have been observed among Macao residents by the research teams in Macao. The research teams and their studies are as follow:

Based on the data collected, it was estimated that approximately 4.0% and 10.5% of the adult population in Macao exhibited coronavirus anxiety and coronavirus obsessions, respectively. These psychiatric symptoms brought on by direct shock were accompanied by higher levels of subjective distress, negative emotions, excessive time consumption, and other adverse reactions that affected the individual's daily life and work. In addition, a series of lifestyle changes brought about by the pandemic have caused adults in Macao to experience new stressors such as increased family conflict, friendship deterioration, and weight gain, which also have indirect effects on people such as depression and anxiety.

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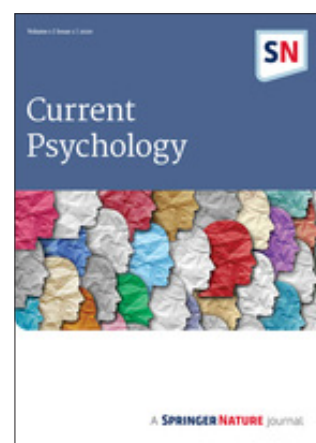
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“Mental Distress during the COVID-19 Pandemic: Its Association with Public Perceptions toward Government's Pandemic Responses and Lifestyle Changes”

In Current Psychology, Vol. 40, Issue 3 (2021), pp. 1-9.

Juliet Honglei Chen, Eilo Wing-Yat Yu, Xiaoyu Su, Kwok Kit Tong, Anise M. S. Wu

In order to propose better mental health interventions under the pandemic threat, the present study aimed to investigate whether depression and anxiety are associated to Chinese adults' perceptions of government's pandemic responses and the personal lifestyle changes imposed by those responses during the COVID-19 pandemic. We used a telephone survey with random sampling and obtained a probability community sample of 616 adults (39.1% men; $M_{age} = 41.7$, $SD_{age} = 16.3$) in Macao, China in April 2020. The prevalence of 8.8% probable depression and 12.0% probable anxiety was observed in this sample. Positive perceptions toward government's pandemic responses were found to be negatively associated with probable depression and probable anxiety ($OR_u = .36$ and $.41$, $p < .05$). Three lifestyle-changing stressors (i.e., increased family conflict, friendship deterioration, and weight gain), were commonly reported (29.9, 27.5, and 43.0% respectively), and displayed positive associations with probable



depression ($OR_u = 1.67$ to $1.87, p < .05$) and probable anxiety ($OR_u = 1.54$ to $2.10, p < .05$). Our findings suggest protective effects of perceived trust and satisfaction regarding government's pandemic responses against mental distress and the potential mental health threats from three pandemic-specific lifestyle-changing stressors. These findings can inform clinicians and policymakers to better prepare for the mental health impacts of the current and future pandemics.

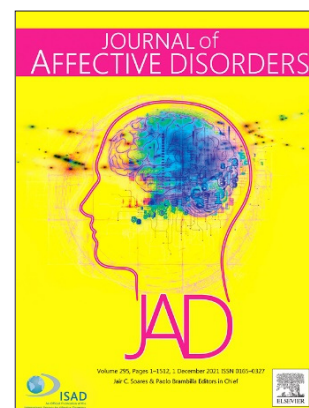
在疫情威脅下，為了提出更好的心理健康干預措施，本研究調查抑鬱和焦慮與澳門成年居民對政府新冠防疫措施之看法的相關程度，以及這些措施造成的個人生活方式的改變。研究使用隨機抽樣的電話調查，於2020年4月在中國澳門獲得共616名成年居民的概率抽樣社區樣本（39.1% 男性； $M_{age} = 41.7, SD_{age} = 16.3$ ）。研究顯示，有8.8%和12.0%的受訪者分別疑似患有抑鬱症和焦慮症，人們對政府新冠防疫措施的積極看法與疑似抑鬱症和焦慮症呈負相關（ $OR_u = .36$ 和 $.41, p < .05$ ），三種改變生活方式的壓力源（即家庭糾紛增加、與他人的友誼受影響和體重增加，分別為29.9、27.5和43.0%）與疑似抑鬱症（ $OR_u = 1.67$ 至 $1.87, p < .05$ ）和疑似焦慮症（ $OR_u = 1.54$ 至 $2.10, p < .05$ ）呈正相關。研究發現，人們對政府新冠防疫措施的信任和滿意度，對精神困擾和由三種特定的生活改變壓力源所帶來潛在的心理健康威脅有保護作用，此發現可為臨床醫生和決策制定者更好地準備對抗當前和未來疫情的心理康復影響提供參考。

“Measuring COVID-19 Related Anxiety and Obsession: Validation of the Coronavirus Anxiety Scale and the Obsession with COVID-19 Scale in a Probability Chinese Sample”

In *Journal of Affective Disorders*, Vol. 295 (2021), pp. 1131–1137.

Juliet Honglei Chen, Kwok Kit Tong, Xiaoyu Su, Eilo Wing-Yat Yu, Anise M. S. Wu,

在新冠疫情大流行的背景下，學界對與新冠相關的精神健康症狀激增的擔憂日漸增加，而針對新冠的、特異性的精神症狀篩查工具卻仍缺乏。為了彌補這一不足，本研究通過對新冠焦慮量表（CAS）與新冠強迫性思維量表（OCS）的驗證性研究，從心理測量學的角度評估這兩個工具在華人群體中的信度和效度，在估測本澳社區中由新冠直接引起的心理健康影響的同時，為華人社區提供針對新冠疫情的特異性的精神健康篩查工具。團隊採用兩階段整群隨機抽樣方法，於2020年6至7月間對1011名中國社區居民（男性佔38.8%；平均年齡為41.2歲，年齡標準差為15.8）進行了電話調查。研究結果支持新冠焦慮量表與新冠強迫性思維量表均在華人群體中保留了其理論建構的單因子內隱結構模型，以及具有跨性別測量的穩定性。研究還進一步發現，中文版的新冠焦慮量表與新冠強迫性思維量表有着良好的內部一致性的信度和效度。通過這兩個量表，我們識別出約4.0%和10.5%的本澳華人群體存在對新冠疫情的過分擔憂和不受控制的強迫性思維。這類高風險群體亦同時表現出了更高水平的負面情緒、思考新冠疫情導致的過度時間耗費、主觀痛苦與功能障礙。基於本研究的發現，我們建議在華人社區中推廣使用新冠焦慮量表與新冠強迫性思維量表，通過針對新冠的特異性工具進一步分辨疫情大流行期間的精神症狀的來源，以便對因新冠相關的焦慮與強迫性思維而需要臨床關注的人及早進行識別與干預。



With concern over the rise in mental health symptoms associated with the COVID-19 pandemic, the present study set out to address the absence of pandemic-specific screening tools for detecting those in Chinese societies who are at-risk for experiencing mental distress due to the pandemic; thus, its aim was to validate the Coronavirus Anxiety Scale (CAS) and Obsession with COVID-19 Scale (OCS) in Chinese adults and to estimate the prevalence of COVID-19 related anxiety and obsession in Macao, China. With a two-stage cluster random sampling method, we surveyed 1011 Chinese community-dwelling adults (38.8% men; 41.2 years old on average with an SD of 15.8) in June and July of 2020. Our psychometric evaluation results showed that the Chinese version of CAS and OCS retained their original one-dimensional structure and demonstrated measurement invariance across genders. In line with validation studies of the CAS and OCS in other languages, subsequent analyses also provided support to our Chinese version with respect to their satisfactory internal consistency and good concurrent validity. Furthermore, we identified 4.0% and 10.5% of the sampled respondents as cases that are at-risk for excessive mental distress due to coronavirus anxiety and obsession, respectively. As shown by our data, these at-risk cases reported significantly higher levels of negative feelings, excessive time-consumption, subjective distress, and functioning impairment than their counterparts. Considering the practical benefits of understanding the source of mental symptoms during the pandemic, we recommend the use of CAS and OCS in Chinese communities to facilitate early identification and intervention for those who require clinical attention due to their COVID-19 related anxiety and obsessive thoughts.

利用地理資訊系統和超高頻無線射頻識別系統的障礙物檢測方法 對澳門歷史城區的光伏系統進行太陽輻射衰減監測

Solar Radiation Reduction Monitoring of Macao World Heritage District Photovoltaic System Using GIS and UHF RFID Obstacle Detection Approach

澳門大學碩士學位（澳門研究）課程學生王榮與澳門大學碩士學位（澳門研究）課程學生戴愛弟、科技學院教授及澳門研究中心兼任教授譚錦榮合著的論文「利用地理資訊系統和超高頻無線射頻識別系統的障礙物檢測方法對澳門歷史城區的光伏系統進行太陽輻射衰減監測」在第九屆智能電網國際會議上獲最佳論文獎，該文主要研究澳門歷史城區分佈式光伏運行中可能受意外遮擋的影響，以下是相關介紹。

Wang Rong and Tai Oi Tai, master's students in Macau Studies at UM and Prof. Tam Kam Weng, Professor of UM Faculty of Science and Technology and Adjunct Professor of the Centre for Macau Studies jointly published the research paper "Solar Radiation Reduction Monitoring of Macao World Heritage District Photovoltaic System Using GIS and UHF RFID Obstacle Detection Approach". The paper won the "Best Paper Award" at the 9th International Conference on Smart Grid and it focused on the possible effects of accidental shading in the operation of distributed photovoltaic systems for the Historic Centre of Macau.

1. 簡介 Introduction

光伏建築一體化系統（BIPV）是發展光伏發電的主要方法之一。用創新技術保護和保存建築物的外觀和建築結構是最基本的要求，但在這些傳統的建築群中總是缺乏創新能源。

在具歷史價值的傳統建築物中應用光伏建築一體化系統的挑戰之一是周圍的障礙物會遮擋或覆蓋太陽能電池板。這可能會大大減少光伏建築一體化系統的陽光照射。因此，有必要為現有的光伏建築一體化系統提供一些創新的解決方案來檢測障礙物。新的解決方案要結構緊湊、重量輕、經濟實惠和與現有系統無縫連接。為此，本文提出了一種經濟實惠的超高頻無線射頻識別方法，在基於地理資訊系統的太陽輻射估算平台上檢測太陽能電池板的障礙物。由於超高頻無線射頻識別標籤結構緊湊且易於結合，因此它們可被貼在太陽能電池板上。利用標籤的信號變化，可以為現有的光伏建築一體化系統引入簡單的檢測功能。

Building Integrated Photovoltaic Systems (BIPV) is one of the major approaches to develop PV power generation. The protection and conservation of appearance and physical structure with innovative technologies are fundamental but innovative energy sources are always lacking in old buildings and historic districts.

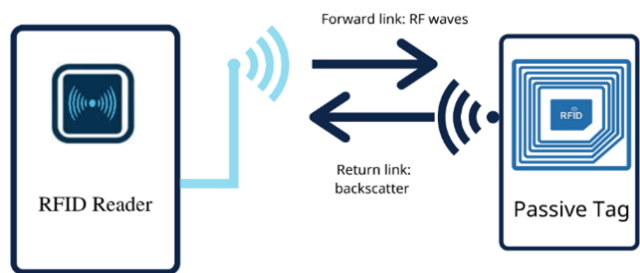
One of the challenges of applying BIPV in historic and traditional buildings is that the surrounding obstacles can shadow or cover the solar panels. This can significantly reduce the solar exposure of BIPV. It is thus necessary to provide innovative solutions to detect obstacles in the existing BIPV with compact size, reduced weight, economic and seamless integration. To this end, this paper proposes an economic UHF RFID approach to detect obstacle for solar panel over the GIS based solar radiation estimation platform. UHF RFID tags are attached to the solar panels due to their compactness and ease of integration. Using the signal change of the tag, simple detection function could be introduced to existing BIPV.

2. 超高頻無線射頻識別系統的障礙物檢測方法 UHF RFID Obstacle Detection

在超高頻下運行的無線射頻識別系統是基於半雙工背向散射通信技術，如圖 1 所示。接收器首先接收響應，然後以分貝毫瓦為單位計算和分析信號的接收信號強度。接收信號強度用於測量無線射頻識別系統標籤從返回信號中接收到的功率強度。當標籤和接收器之間有障礙物時，傳輸的信號會變弱，接收信號強度也會降低。這種簡單的機制為現有的光伏建築一體化系統提供了一個經濟實惠的解決方案，以檢測障礙物遮擋。

RFID system operated in UHF is based on the half duplex mode of backscattering communication, as shown in Fig. 1. The reader receives the response and then calculates and analyzes the signal's RSSI in dBm. RSSI is used to measure the strength of the power received from the returned signal by RFID tag. When obstacles are placed between the tag and the reader, the RSSI will be lower because the transmitted signal becomes weaker. This simple mechanism provides an affordable solution for existing BIPV to detect obstacles.

圖 1. 背向散射的原理 Fig. 1 Principle of Backscattering



無線射頻識別接收器 RFID Reader

正向 (鏈接 / 信號) : 無線電波 Forward link: RF waves

返回 (鏈接 / 信號) : 背向散射 Return link: backscatter

無源標籤 Passive Tag

3. 無源超高頻射頻識別標籤的接收信號強度受障礙物的影響 RSSI of UHF RFID Passive Tag Influenced by Obstacles

本實驗對標籤天線受障礙物影響的情況進行了測試，如圖 2 所示。超高頻無線射頻識別標籤固定在電路板上，離接收器 1.5 米遠。標籤在四個不同的方向進行了測試，如圖 3 所示。

這個實驗研究了標籤方向和手部之間的信號強度關係。圖 4 記錄了接收信號強度，障礙物在距離閱讀器 50 厘米、70 厘米和 100 厘米處移動。在進行非接觸式移動障礙物測試之前，我們對標籤進行了 500 次掃描來作為參考值。相比之下，接收信號強度指示的變化在 50 厘米處是可以明顯區分出來，它作為檢測障礙物附近的鄰域是足夠好的。

當標籤在其他方向如垂直方向時，會觀察到類似的接收信號強度的變化，而橫向標籤會被用來簡化標準工程。

This experiment performs the testing of the tag's antenna influenced by obstacle, as shown in Fig. 2. The UHF RFID tag is fixed on the board and is 1.5 m away from the reader. The tag changes in four directions for the testing, as shown in Fig. 3.

This experiment studies the signal strength relationship between tag orientation and the hand. The RSSI is recorded in Fig. 4, obstacle moves from 50 cm, 70 cm and 100 cm from the reader. Before performing the testing of contactless obstacle movement, we scan the tag 500 times as the reference value. In comparison, it is obvious that the RSSI change is differentiable at 50 cm, and it is good enough as the obstacle proximity detection neighborhood. When the tag is in some other directions like the vertical direction, similar RSSI variation is observed. Horizontal tag is used to ease the standard engineering work.

圖 2. 障礙物檢測實驗 Fig. 2 Obstacle Detection Experiment

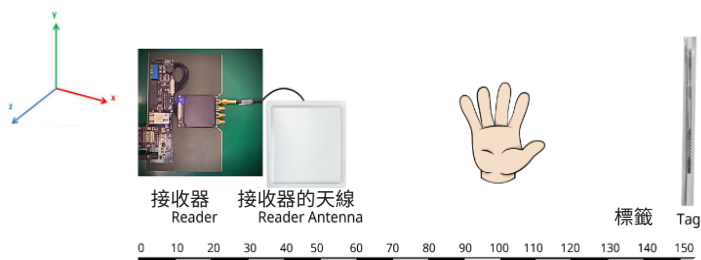
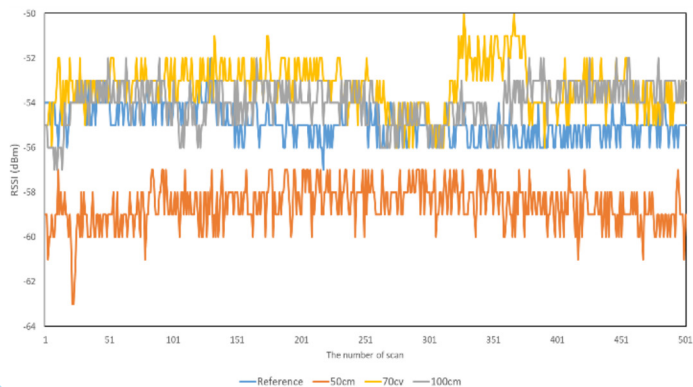


圖 3. 標籤的方位 Fig. 3 The tag orientation



圖 4. 在不同的距離內，橫向標籤對障礙物的接收信號強度的測量值

Fig. 4 RSSI measurement for horizontal tag against obstacle in different distance



接收信號強度指示 (分貝毫瓦) RSSI (dBm)

掃描次數 The number of scan

參考值 Reference

50 厘米 50 cm; 70 厘米 70 cm; 100 厘米 100 cm

4. 地理資訊系統平台上的太陽輻射衰減估算 Solar Radiation Reduction Estimation in GIS Platform

在澳門的大三巴牌坊確定了 5 個可以用於建立光伏建築一體化系統的地點。通過谷歌地球，這 5 個屋頂面積估計分別為 150 平方米、250 平方米、370 平方米、750 平方米和 940 平方米。

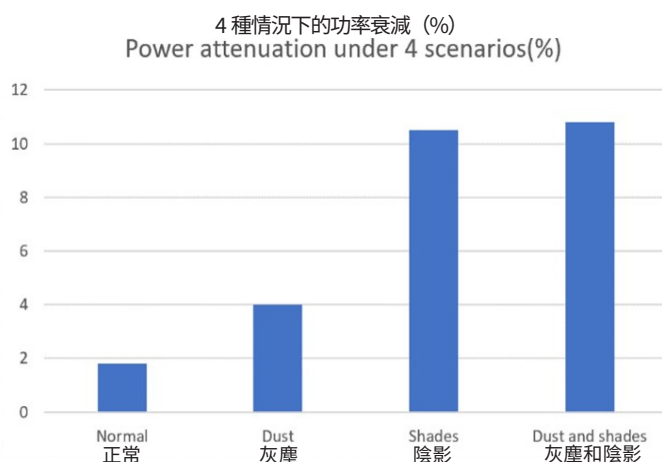
根據上文，如果將無線射頻識別標籤貼在面板上並以此作為檢測工具，可發現受障礙物影響的太陽輻射變化約為 6 分貝（即約 50%）。為此，相關變化被輸入到一個開放的地理資訊系統平台——光伏能源估算平台（PVWatts）。對於最後上述最後一棟建築，每天平均太陽輻射量為 4.1 千瓦時 / 平方米，夏季的發電量最高可達到 10,958 千瓦時，電費收入超過 4,700 美元。在實際情況下，灰塵和樹木等障礙物的遮擋將大大影響光伏發電的輸出。參考過往的研究，在圖 5 中列出了 4 種情況，對光伏發電的平均功率衰減進行了比較。

Ruins of St. Paul's, a World Heritage site in Macao, is discussed and 5 possible BIPV sites are identified. These 5 rooftop areas are estimated to be 150 m², 250 m², 370 m², 750 m² and 940 m² by Google Earth.

According to section 3, solar radiation variation influenced by obstacle is found to be around 6 dB (~50%) if the RFID tags are attached to the panel and used as the detection tool. To this end, relevant variation is inputted into an open GIS platform—PVWatts, a photovoltaic energy estimation platform. For the last rooftop above with average solar radiation of 4.1 kWh/m²/day, the maximum monthly AC energy can reach 10,958 kWh at a profit of 4,700 USD in summer. In practice, the occlusion of obstacles such as dust and trees will greatly affect the power output of PV. Referring to previous research, the average power attenuation was compared under 4 scenarios as listed in Fig. 5.

圖 5. 不同情況下光伏發電的功率衰減情況

Fig. 5 Power attenuation of PV under different scenarios



5. 結論 Conclusion

此項關於使用超高頻無線射頻識別系統來減少太陽輻射的研究，發現有障礙物和無障礙物之間的接收信號強度指示相差 6 分貝。這種超高頻無線射頻識別方法可以很容易地與現有的光伏地理資訊系統平台整合，用於太陽能的經濟收益監測。

This paper presents a study of solar radiation reduction using UHF RFID and it is found that there is a 6 dB RSSI difference with and without the obstacle. This UHF RFID approach can be easily integrated with existing photovoltaic GIS platform for solar energy economic gain monitoring.

澳門大學澳門研究中心統籌國際頂尖學術期刊 Profile of World-Class Journals of UM CMS

澳門大學澳門研究中心負責統籌出版的《當代亞洲》期刊，在最新發佈的 SSCI 期刊引用報告中，影響因子為 3.261，成為區域研究類別中全球排名第三，在過去四年躍升了四位。《當代亞洲》是一本真正的世界級期刊，涵蓋亞洲地區當代政治經濟學的前沿研究。該期刊自 2018 年起由澳門大學澳門研究中心負責，並由 CMS 澳門研究中心多名客座教授負責編輯工作，2017 年該刊的影響因子為 1.141，在區域研究類別中全球排名第七。

The Centre for Macau Studies (CMS) of University of Macau has coordinated the publication of *the Journal of Contemporary Asia (JCA)* which has an impact factor of 3.261 in 2021 SSCI journal citation report, ranking it at the third position in the category of Area Studies. It has escalated four places in the past four years. The *Journal of Contemporary Asia (JCA)* is a truly world-class journal that publishes cutting-edge research on contemporary political economy of the Asian region. The journal has been based in CMS since 2018. Several adjunct professors of CMS are at the editing-team of that world-class journal. In 2017, its impact factor was 1.141 and has been ranked no.7 in the category of area studies.

此外，澳門研究中心負責的另一本 SSCI 期刊《國情導報》，於第 33 卷第 1 期刊出了一篇由 Florence Mok 博士撰寫的文章，獲得日本京都舉行的第 12 屆亞洲學者國際會議（ICAS 12）的最佳文章獎。《國情導報》是專門及時發表對當代



中國的深入研究，自 2011 年以來一直駐紮在澳門研究中心，該刊在 2021 年影響因子 1.676，在區域研究類別中全球排名第廿三。

China Information is another SSCI journal hosted by CMS. The journal publishes timely and in-depth research on contemporary China. The high quality of its articles is reflected in the fact that one of its recent articles (authored by Florence Mok in vol. 33, no. 1) has won the best article prize at the 12th International Convention of Asia Scholars (ICAS 12) held in Kyoto this year. *China Information* has been based in CMS since 2011. Its 2021 Impact Factor is 1.676, ranking no.23 in the world at the category of area studies.

澳門研究中心主任林玉鳳教授表示，中心負責的 SSCI 期刊取得佳績，在澳門、中國和亞洲研究領域發揮著重要作用，相信對推動澳門大學的國際聲譽和排名可以作出貢獻。目前，澳門大學主辦的 SSCI 國際期刊比大中華地區大學都多，相信可以助力推動澳門大學在社會科學和區域研究的聲譽。

Talking about this publication profile, the Director of CMS, Prof. Agnes Lam, said that the SSCI journals that the center is responsible for have accomplished outstanding achievement and this plays a significant role in the research fields of Macao, China and Asia. She believes that it can contribute to the international reputation and ranking of the University of Macau. At present, the University publishes more SSCI international journals than any universities in the Greater China region. It is believed that it can help enhance the reputation of the University of Macau in social sciences and area studies.

目前，澳門大學澳門研究中心同時負責《澳門研究》和《文化雜誌》的編輯工作。《澳門研究》是由澳門大學澳門研究中心於 1988 年創刊的綜合性學術刊物，於 1992 年起與澳門基金會合作編輯出版，以「立足澳門、研究澳門，為澳門發展服務」為宗旨，過去三十年，共出版超過 90 期、2000 篇有關澳門的研究文章。《澳門研究》是世界上以研究澳門為目的之領先的學術期刊，以促進澳門原創性、跨學科研究為己任。《文化雜誌》由澳門特別行政區政府文化局出版，澳門研究中心作為《文化雜誌》的編輯部，該刊是一份研究歷史文化的雜誌，分中文及外文（葡文 / 英文）兩種文本出版。其宗旨是推動東西方文化交往，促進澳門與海內外的學術交流。

At present, CMS is coordinating the publication works for the *Journal of Macau Studies (JMS)* and the *Review of Culture (RC)*. The *Journal of Macau Studies* is a comprehensive academic quarterly journal launched by Center

for Macau Studies of University of Macau since 1988, and cooperated to publish with Macao Foundation since 1992, which aims “to pursue research on Macao society from the standpoint of Macao itself, for serving the development of Macau”. In retrospect to the past 30 years, JMS has published more than 90 issues, approximately 2,000 research articles related to Macao. *Journal of Macau Studies (JMS)* is the leading journal of its kind in the world. It is a refereed journal that promotes original, multi-disciplinary research on Macao. In addition, the *Review of Culture* is published by the Cultural Affairs Bureau, Macao SAR, and CMS is responsible for the editing and publishing affairs. It is a magazine covering an extensive range of topics, namely history and culture, which publishes in two versions—Chinese and International (Portuguese/English) respectively. The *Review of Culture* seeks to promote freedom of expression and stimulate ideas and discussions of topics related to Western & Eastern Cultural Interchange.

本簡報刊登有關澳門的研究，如欲投稿，可透過以下方式聯絡本中心：

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