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Mentorship Program Wins Global Recognition

- NTU x TPOD Higher Education Int'l Forum
- GUPS Makes Its Debut
- The Sinking of Nan Madol

Trilateral Academic Alliance

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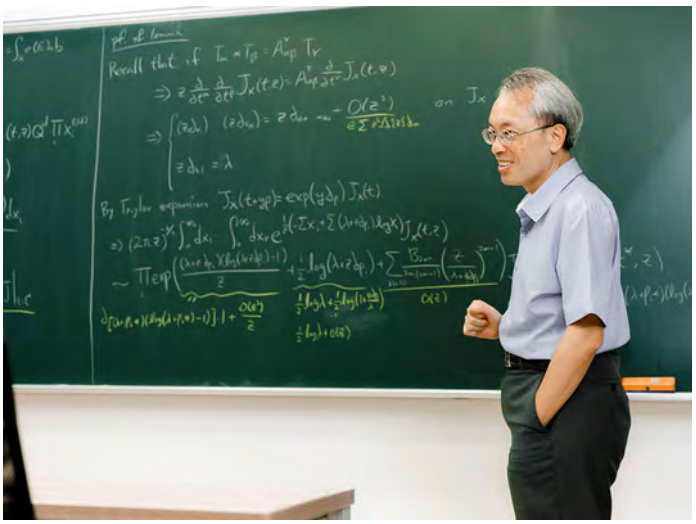
FEATURES



Prof. Chin-Lung Wang Speaks of Math As the Purest Language

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HONOR

Prof. Tung-Wu Lu Honored as Fellow of the National Academy of Kinesiology, USA

Prof. Tung-Wu Lu of the Department of Biomedical Engineering at National Taiwan University has been named a Fellow of the National Academy of Kinesiology (NAK), USA. He was officially inducted into the Academy during its 93rd Annual Meeting, in Minneapolis, Minnesota on September 28, 2024, where he was presented with the Fellowship certificate and medal.

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Acer Foundation Supports Tuberculosis Control Project in Namibia

The Acer Foundation has made a significant contribution to global health efforts by donating 300 tablet computers to a collaborative project aimed at ...

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ACHIEVEMENTS

The Sinking of Nan Madol: A Tragic Tale of Climate Change Echoing Today

On the eastern coast of Pohnpei Island, Micronesia, lie the abandoned ruins of Nan Madol, the ancient capital of the Saudeleur Dynasty. Known as the "Venice of the Pacific," this floating city comprised over 100 artificial islets constructed from nearly a million tons of columnar basalt and coral rubble, spanning approximately 18 square kilometers. While the exact timeline and environmental factors affecting its development were previously unclear, a recent study has shed light on the site's tragic history.

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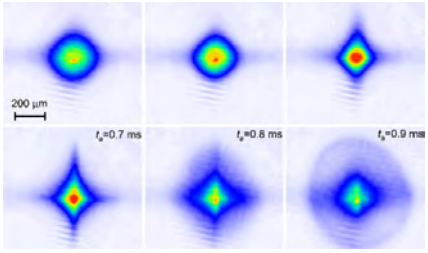

Rapid Quantum Gas Formation through Electromagnetically Induced Transparency Cooling

Quantum gas is a novel, non-classical state of matter, alongside gas, liquid, solid, and plasma states. In recent years, quantum gases have played a crucial role in the development of quantum science and technology, with many breakthroughs relying on experimental advancements in quantum gas studies. The condition for a regular gas to transition into a quantum gas is when the de Broglie wavelength of individual atoms exceeds the ...

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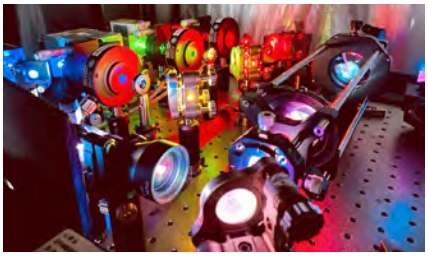

Interdisciplinary Collaboration Unveils Key Mechanistic Insights into DNA Recombination

Meiotic recombination is crucial for generating genetic diversity and ensuring proper chromosomal segregation during reproduction. This complex process requires recombinases to assemble on single-stranded (ss) DNAs, forming nucleoprotein filaments that facilitate homology search and strand exchange between homologous DNAs. However, ssDNAs are typically bound by abundant, high-affinity ssDNA-binding proteins (RPA), ...

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Prof. Pisin Chen Wins 2024 Chandrasekhar Prize of Plasma Physics

The Association of Asia-Pacific Physical Societies Division of Plasma Physics (AAPPS-DPP) has bestowed upon Prof. Pisin Chen as the 11th Laureate of the prestigious Chandrasekhar Prize for Plasma Physics. This accolade is awarded to scientists who have made seminal contributions to the field of plasma physics, and Prof. Chen was recognized for his groundbreaking work in advancing the understanding of collective interactions in ...

...more

TEACHING & LEARNING

Nobel Laureates Alain Aspect and Yuan-Tseh Lee Discuss Quantum Physics, Interdisciplinary Research, and Global Scientific Challenges at NTU Forum

On October 15, 2024, Nobel laureates Prof. Alain Aspect and Prof. Yuan-Tseh Lee captivated the audiences at National Taiwan University (NTU) during a public lecture and forum held in the Shih-Liang Chen Lecture Hall. The event was aimed to foster Taiwanese-French cooperation in science and technology, sharing insights into the latest in quantum physics, interdisciplinary research, and today's pressing scientific challenges.

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NTU Online Course Wins Award from the Entomological Society of America

NTU Prof. Matan Shelomi of the Department of Entomology was awarded the 2024 Science Communication Award by the Entomological Society of...

...more

GUPS Makes Its Debut

On August 1, 2024, NTU's International College proudly launched the Global Undergraduate Program in Semiconductors (GUPS), the college's ... first all-English undergraduate degree program. NTU established this program

...more

NTU x TPOD Higher Education Int'l Forum

NTU's Future University Project Office, in collaboration with the Taiwan Professional and Organizational Development Network in Higher Education (TPOD), successfully hosted "NTU x TPOD Higher Education ...

...more

Major Companies Support OSA's Mentorship Program

On September 23, 2024, NTU's Career Center, a unit of the Office of Student Affairs, hosted an event showcasing the "Interdisciplinary Internship – Mentorship Program". Senior executives from ...

...more

PEOPLE

Nobel Laureate Prof. Alain Aspect Awarded NTU Honorary Doctorate

National Taiwan University (NTU) hosted an honorary doctorate award ceremony on October 14, at which President Wen-Chang Chen conferred an Honorary Doctor of Philosophy degree on French scholar Prof. Alain ...

...more

Honoring a Legacy: 10th Anniversary Memorial Exhibition of Academician Yung-Ho Tsao

Academician Yung-Ho Tsao (1920-2014) is celebrated as an autodidact pioneer in Taiwan's academic community. Despite having received only a high school education, Tsao embarked on an arduous journey of self-study from library...

...more

Circling the World on a Flying Platter: NTU Global Food Day

"Hello, bonjour! Would you like to try some French crepes?" In the corner of a bustling classroom, Rosan from France warmly offers her griddle fresh crepes to her new friends. She had stayed up the ...

...more

NTU Unveils Top 100 Contributions: Celebrating a Century of Excellencey

In anticipation of its looming centennial in 2028, National Taiwan University (NTU) has taken a momentous step to commemorate its legacy. The origins of NTU trace back to the founding of ...

...more

NTU Celebrates Its 96th Anniversary with a Grand Ceremony

On November 15, 2024, National Taiwan University (NTU) celebrated its 96th anniversary with a grand ceremony held at the university's main sports complex. Presided over by President Wen-Chang ...

...more

Dr. Min Kao awards the inaugural Garmin Chair Professors and Scholars

On November 25, 2024, National Taiwan University (NTU) hosted the "Garmin Chair Professorships and Scholar Fellowships" award ceremony. The event...

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FEATURES

Prof. Chin-Lung Wang Speaks of Math As the Purest Language

Intro-video of Prof. Chin-Lung Wang.

In his modest office, Prof. Chin-Lung Wang of NTU's Department of Mathematics listens intently to a student's presentation. Occasionally, he pauses to offer his reflections while gesturing at a dense mosaic of formulas on the whiteboard. This weekly meeting with his research team is a fixture in his schedule. Despite his recent induction as an Academician of Academia Sinica in July, Prof. Wang's routine remains unchanged. "To bequeath a formula that will be used for hundreds of years—is there any greater joy?" He takes his new title with a calm indifference, viewing it as far less significant than making tangible contributions to theoretical science.

Prof. Wang's daily routine includes discussions with students and analyzing complex mathematical concepts on the whiteboard.

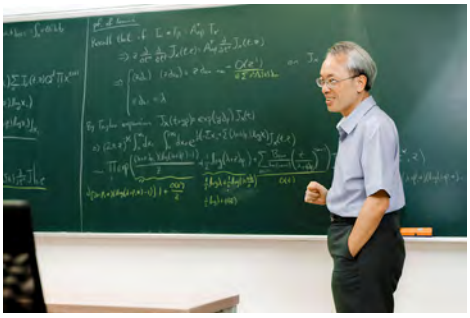
Prof. Wang's team focuses on the development of quantum geometry, a field that merges algebraic and differential geometry with string theory from physics. This interdisciplinary approach not only aids physicists in predicting the behavior of the microscopic world through the languages of mathematics but

also inspires mathematicians to explore new concepts drawn from theories of physical phenomena. When discussing the impact of his research on the scientific community, Prof. Wang's expression lights up, as if he could talk for hours without tiring.

Prof. Wang's love for mathematics began in high school, where he was captivated by its beauty. He pursued his research ambitions despite family opposition, enduring financial hardships along the way. These experiences left him deeply aware of the role financial support plays for young researchers. After joining NTU, he worked tirelessly to secure resources to establish scholarships, hoping to relieve students from financial concerns so they could focus on their academic pursuits without distraction.

Wang also emphasizes the importance of finding students who are a good fit for collaborative research. Reflecting on his studies in the United States, he recalls the strong culture of discussion and mutual growth among students. At NTU, he has worked actively to promote curriculum reform and cultivate a research-team culture. He proudly notes that NTU's Department of Mathematics now offers a comprehensive training environment for students who share a passion for mathematics.

For Prof. Wang, the allure of mathematics lies in its purity—its constancy that persists amid an ever-changing world. Driven by a pursuit of "truth," he has devoted much of his life to mathematics without regret. "Standing before the goddess of truth, you have no choice but to kneel," he says, summing up his commitment to the field.



Prof. Chin-Lung Wang was recently inducted as an Academician at the 34th session of Academia Sinica.

Co-founded by Prof. Chin-Lung Wang and Hui-Wen Lin, TIMS provides an advanced research platform for exploring new frontiers in mathematics.

Honors and Contributions:

Prof. Chin-Lung Wang was recently inducted as an Academician at the 34th Convocation of Academia Sinica. Together with Prof. Hui-Wen Lin, he co-founded the Algebraic Geometry Group in Taida Institute of Mathematical Sciences (TIMS), a research team that continues to push the boundaries of mathematical knowledge.

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HONOR

Prof. Tung-Wu Lu Honored as Fellow of the National Academy of Kinesiology, USA

Prof. Tung-Wu Lu (front row, first left) in group photo of the Department of Biomedical Engineering faculty at National Taiwan University.

Prof. Tung-Wu Lu of the Department of Biomedical Engineering at National Taiwan University has been named a Fellow of the National Academy of Kinesiology (NAK), USA. He was officially inducted into the Academy during its 93rd Annual Meeting, in Minneapolis, Minnesota on September 28, 2024, where he was presented with the Fellowship certificate and medal.

Professor Tung-Wu Lu (second left), along with President Samuel R. Hodge (first right) and sponsors (Professors Li and Tsung-Ming Hung), after his official induction into the Academy during its 93rd Annual Meeting, held in Minneapolis, Minnesota on September 28, 2024.

Founded in 1926, the National Academy of Kinesiology is the highest academic institution in the field of kinesiology in the United States. Election as a Fellow is a lifetime honor, representing significant contributions to the global field of kinesiology. During the past century, only 643 scholars have been selected as Fellows. In 2024, 19 new Fellows were elected, including three international Fellows. Prof. Lu is the fourth kinesiologist from Taiwan to receive this honor and the first from a non-sports department.

Prof. Lu was awarded his D.Phil in Engineering Science by Oxford University in 1997 and has been a faculty member at NTU's Department of Biomedical Engineering for 26 years. During this time, he has served as Director of the Rehabilitation Engineering Research Center and the Chair of the Department of Biomedical Engineering. He is currently a joint professor in the Departments of Orthopaedic Surgery and School of Occupational Therapy at the NTU College of Medicine. He also serves as Director of NTU's Health Science and Wellness Research Center and is a board director of the Taiwan Institute of Sports Science.

Prof. Lu's research expertise encompasses human motion analysis, orthopedic biomechanics, sports biomechanics, imaging biomechanics, and intelligent wearable technology. He has published over 210 peer-reviewed journal papers and received numerous awards, including the Young Investigator Award from the Orthopedic Research Society (USA) and recognition as one of the world's top 2% scientists. His research findings have had a profound impact on practical applications, particularly his development of a global optimization method to reduce skin marker movement errors in 3D motion capture systems, now widely used in commercial motion analysis systems.

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GLOBAL OUTLOOK

NTU-UGA-UT Tri-Nation Academic Alliance: A New Era of Global Collaboration

NTU President Wen-Chang Chen, UGA President Yassine Laknech, and UT President Kyosuke Nagata after signing the Memorandum of Understanding to launch the NTU-UGA-UT Trilateral Center.

On October 4, 2024, a significant milestone was reached as National Taiwan University (NTU), the University Grenoble Alpes (UGA), and the University of Tsukuba (UT) formally launched the NTU-UGA-UT Trilateral Center. The signing ceremony, held at the University of Tsukuba, was attended by NTU President Wen-Chang Chen, UGA President Yassine Laknech, and UT President Kyosuke Nagata.

The presidents of NTU, UGA, and UT at the unveiling ceremony at the University of Tsukuba.

This landmark partnership aims to foster the exchange of knowledge and expertise among the three institutions in key areas, including materials science, information science, smart cities, semiconductors, high-energy physics, and environmental science. By establishing the Trilateral Center, the partner universities aspire to drive groundbreaking research and technological advancements, empowering researchers and students to address complex global challenges and shape the future.

The center will serve as a hub for joint research projects, collaborative workshops, and student exchange programs, encouraging interdisciplinary collaboration and international teamwork. With a focus on shared innovation, the partnership will amplify the strengths of each institution and create new opportunities for academic cooperation.

The University of Tsukuba and the University of Grenoble Alps have a long-standing bilateral relationship, with continuing partnerships in student exchange and dual degree programs. NTU's addition to this alliance further strengthens the network and opens new avenues for collaboration.

This trilateral alliance marks a new era of global academic partnership, combining the expertise and resources of three world-class universities. The NTU-UGA-UT Trilateral Center is poised to make significant contributions to advancing science, technology, and society.

The unveiling of the plaque by the presidents of NTU, UGA, and UT.

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GLOBAL OUTLOOK

NTU's Int'l Mentorship Program Wins Global Recognition

National Taiwan University's (NTU) International Mentorship Program (IMP) has made its mark in international education, winning two prestigious awards at The PIEoneer Awards 2024. Held at London's historic Guildhall, the awards ceremony brought together nearly 600 leaders from higher education, industry, and government to celebrate innovation and excellence in global education. The IMP was honored with the "Employability International Impact Award" for its outstanding success in fostering international employability. It was also named "Pioneer of the Year" for its innovative approach.

Award Ceremony in London: NTU's Vice President for International Affairs, Prof. Hsiao-Wei Yuan, accepting the awards at London's Guildhall.

Launched in 2022, the IMP is a unique initiative designed to empower international students in Taiwan with career guidance, training, job placement, and visa support—equipping them to pursue meaningful careers in Taiwan. Within just three years, the program has expanded significantly. From an initial cohort of 40 participating organizations, 51 mentors, and 58 students, the IMP now includes 91 organizations, 113 mentors, and 180 students. The program's rapid growth has been fueled by partnerships with top international institutions, including University College London, Singapore Management University, and the University of Washington, as part of the Global Talent Alliance.

Celebrating Success: NTU President Wen-Chang Chen and Prof. Hsiao-Wei Yuan holding the two awards from the PIEoneer Awards 2024.

Prof. Hsiao-Wei Yuan, NTU's Vice President for International Affairs, accepted the awards, expressing sincere gratitude to the judges while underscoring IMP's alignment with Taiwan's national strategy to attract, develop, and retain global talent. The program has successfully drawn more international students to study and establish careers in Taiwan, significantly enhancing NTU's global collaborations.

This recognition underscores NTU's commitment to creating a vibrant, inclusive learning environment. The IMP serves as a model for universities worldwide, demonstrating how structured support for international students can positively impact both local and global talent pools. By enabling international students to pursue their career aspirations, the program not only strengthens Taiwan's economy but also enriches the global workforce.

GLOBAL OUTLOOK

Taiwan to Host 2025 Int'l Linguistics Olympiad, Showcasing Excellence

Individual Silver Medal Winner: Bearing ROC flag from left to right: Hao-Hsuan Gao, Chang-You Wu, and Li-Bang Chen.

The International Linguistics Olympiad (IOL) is a prestigious global competition that challenges high school students in logical reasoning, cultural understanding, and creativity. Unlike traditional academic Olympiads, IOL does not require participants to have extensive knowledge of linguistics or fluency in multiple languages. Instead, students are tasked with interpreting linguistic samples from unfamiliar languages, thus honing their skills in grammar, phonology, semantics, and script analysis. Through conducting intricate logical deduction and data analysis, participants develop their critical thinking and problem-solving abilities.

Taiwan Delegation at the 2024 IOL in Brazil: Representative Chih-Hsien Liao (in suit) with the Taiwan IOL team.

In 2024, Associate Professor Chen-Hao Chiu of NTU's Graduate Institute of Linguistics and Associate Professor Chen-Hsiu Kuo of the Department of Foreign

Languages and Literatures led the Taiwan delegation to Brazil for the 21st IOL, where the team once again achieved remarkable results. In the individual competition, Taiwanese students won three silver medals, one bronze, and an honorable mention, while the team also secured a bronze in the group category, demonstrating Taiwan's excellence on the international IOL stage.

Scan the QR code to visit the Taiwan IOL website.

Since 2016, Taiwan has consistently excelled in IOL, earning numerous individual and team awards, including gold, silver, and bronze medals, as well as the Best Solution Award. Taiwan's cumulative medal count has placed it among the top ten countries globally, establishing a strong reputation within the international linguistics community. These achievements reflect Taiwan's robust foundation in linguistics and logical analysis education, as well as the effective integration of educational innovation and technology.

Following up on Taiwan's consistently outstanding performances over the years, the country successfully bid to host the 22nd IOL in the summer of 2025 at NTU. The event will attract top students and coaches from over 50 countries and regions, offering Taiwan a golden opportunity to showcase her technological prowess and educational innovations while enhancing the global outlook of the rising generation. Taiwan and NTU look forward to welcoming the international IOL community, and hosting IOL 2025 with a spirit of warmth, innovation, and excellence, as well as hopes of advancing linguistic education on a global scale.

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GLOBAL OUTLOOK

Acer Foundation Supports Tuberculosis Control Project in Namibia

The Acer Foundation has made a significant contribution to global health efforts by donating 300 tablet computers to a collaborative project aimed at reducing tuberculosis (TB) transmission and alleviating its economic burden on Namibia in southern Africa.

Tuberculosis remains one of the most critical infectious diseases globally, especially in developing nations. While nearly 100% of TB cases can be cured with appropriate treatments, if left untreated, nearly half of all patients perish from the disease within three years. The World Health Organization (WHO) has identified Namibia as a country with "a high burden of tuberculosis (TB)," ranking it ninth globally in rate of TB incidence, with 460 cases per 100,000 people—16 times the rate in Taiwan.

The international project, titled "Hotspots, Hospitals, and Households: Enhanced Case Finding of Drug-Resistant Tuberculosis in Namibia" (H3TB), is led by the University of Namibia in partnership with Namibia's Ministry of Health, Imperial College London, National Taiwan University, and Harvard Medical School. The initiative focuses on early detection and treatment of drug-resistant TB through screening of household contacts of TB patients, hospital visitors, and members of high-risk communities. Its primary goal is to break the chain of TB transmission, improve treatment outcomes, and reduce the financial burden on affected families.

To assess the economic impact of this active case-finding approach, the project team will conduct a household survey to determine if the intervention effectively reduces catastrophic financial costs for families affected by TB. Given Namibia's transportation limitations, the donated tablets—equipped with communication capabilities—will greatly improve data collection efficiency and support effective TB control efforts.

On August 23, 2024, Acer Foundation Chief Executive Officer Mr. Guo and Director of Tablet Business Management Mr. Chen visited NTU's College of Public Health, to meet with Dean Prof. Cheng and Director Prof. Lin. This meeting deepened their mutual understanding and also provided the Acer Foundation leaders with precious insights into tackling global health challenges, laying the groundwork for future collaboration.

Group Meeting on August 23, 2024: From left to right: Mr. Chen, Head of Tablet Business Management at Acer; Mr. Guo, Chief Executive Officer of Acer Foundation; Prof. Cheng, Dean of the College of Public Health at NTU; and Prof. Lin, Director of the Graduate Institute of Epidemiology and Preventive Medicine.

University of Namibia Campus and H3TB Project Website:
The University of Namibia campus alongside a section of the H3TB project website (source: https://www.unam.edu.na/h3tb), with members of the H3TB project team.

We extend our sincere gratitude to the Acer Foundation for its generous support in advancing global health and contributing to the United Nations Sustainable Development Goals. This sort of collaboration highlights the vital role of multi-institutional partnerships in addressing complex public health issues, and we anticipate further advancements over time.

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ACHIEVEMENTS

The Sinking of Nan Madol: A Tragic Tale of Climate Change Echoing Today

A conceptual illustration of a reconstructed Nan Madol.

On the eastern coast of Pohnpei Island, Micronesia, lie the abandoned ruins of Nan Madol, the ancient capital of the Saudeleur Dynasty. Known as the "Venice of the Pacific," this floating city comprised over 100 artificial islets constructed from nearly a million tons of columnar basalt and coral rubble, spanning approximately 18 square kilometers. While the exact timeline and environmental factors affecting its development were previously unclear, a recent study has shed light on the site's tragic history.

Abandoned ruin of Nan Madol

An international research team led by MOE National Chair Professor Chuan-Chou Shen of NTU's Department of Geosciences has analyzed coral rubble samples from Nan Madol to disclose its history. The team found that subsidence-induced sea level rise and climate change had severely impacted the city's construction and upkeep, ultimately contributing to the collapse of the Saudeleur Dynasty and the abandonment of Nan Madol. These findings, published in *PNAS Nexus* on October

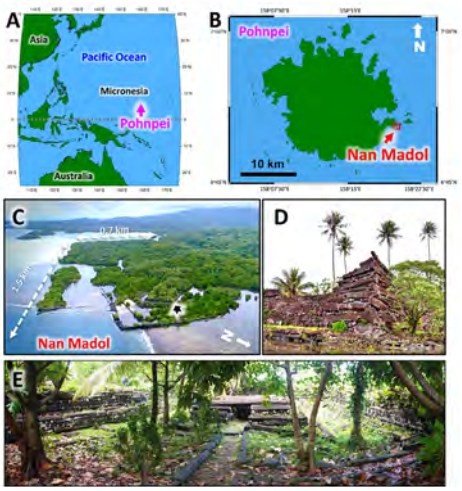
1, 2024, and highlighted by Science on October 25, serve as a cautionary tale, especially for island nations facing similar climate threats today.

The study reveals two main construction phases at Nan Madol: the 10th-12th century marked the rise of the Saudeleur Dynasty, while the late 12th to early 15th century saw the dynasty's decline. These phases are centuries earlier than previously believed. Formed by volcanic activity, Pohnpei Island has gradually cooled, causing the landmass to contract and sink by about 1 millimeter annually, leading to a relative rise in sea level. By the second construction phase, almost all Nan Madol compounds were already below average sea level. This ruin endured severe climate fluctuations for over a century, especially during La Niña periods, which brought powerful easterly winds and elevated sea levels. These pressures induced frequent seawater surges that damaged structures, making maintenance a significant challenge. Eventually, public discontent culminated in the overthrow of the dynasty, and Nan Madol was left to decay.

Today, this story of Nan Madol serves as a stark warning. With ongoing climate oscillations in the Pacific and Indian Oceans, coupled with global warming-induced sea level rise, more islands worldwide are at risk of submersion, potentially leading to a significant increase in climate refugees in the coming decades. Curbing global warming to prevent such tragedies is an urgent priority.

Click or Scan the QR code to read the journal article in *PNAS Nexus*.

Science Editor's Choice (2024) Societal Collapse: Hidden drivers.



(A) Location of Pohnpei, the third-largest island in Micronesia.
(B) Map of Pohnpei indicating the site of Nan Madol, the capital of the Saudeleur Dynasty.
(C) Aerial view of Nan Madol.
(D) Northeastern corner of the outer wall of the Royal Tomb Complex (4–6 m in height, marked by the black arrow in C).
(E) Central stone chamber where Saudeleur chiefs were interred.

Researchers conducting surveys and sampling at the site of Nan Madol.

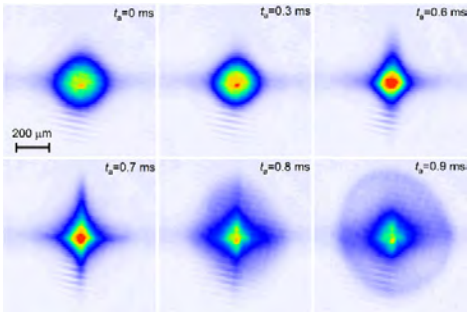
Dr. Chuan-Chou Shen from the Department of Geosciences, National Taiwan University (front), and Dr. Felicia Beardsley, an archaeologist from the University of La Verne (back), collecting coral samples from the outer wall of the Royal Tomb Complex.

Researchers at the HISPEC Laboratory, Department of Geosciences, National Taiwan University, preparing coral subsamples for uranium-thorium dating.

ACHIEVEMENTS

Rapid Quantum Gas Formation through Electromagnetically Induced Transparency Cooling

Quantum gas is a novel, non-classical state of matter, alongside gas, liquid, solid, and plasma states. In recent years, quantum gases have played a crucial role in the development of quantum science and technology, with many breakthroughs relying on experimental advancements in quantum gas studies. The condition for a regular gas to transition into a quantum gas is when the de Broglie wavelength of individual atoms exceeds the atomic spacing, a transition that can be facilitated by cooling, which increases the wavelength of matter waves. Since Nobel laureates Prof. Eric Cornell and Carl Wieman first experimentally observed quantum gases in 1995, their creation has largely depended on evaporative cooling, a process akin to cooling hot water by letting it evaporate at room temperature. However, this cooling method is inefficient and requires time for atomic collisions and thermalization to complete.



The image shows the experimental observation of the "Bosenova" collapse of the quantum gas, where the central part represents the quantum gas formed within a three-dimensional optical lattice via electromagnetically induced transparency and adiabatic expansion techniques. After the "Bosenova" collapse, atoms collide and emit a large quantity of atomic jets, forming a shell-like structure.

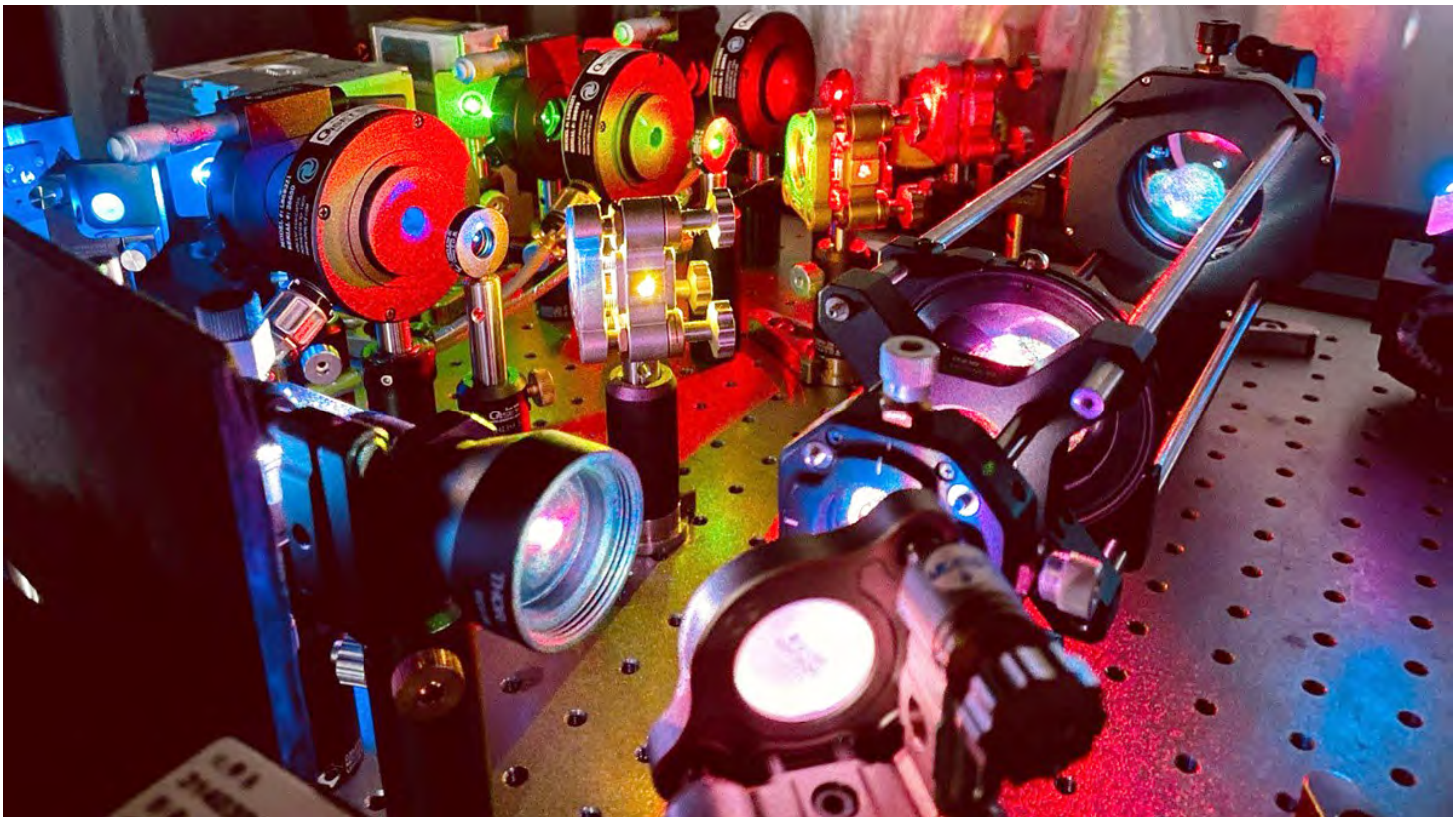
In a recent study published in *Nature Physics*, a quantum science research team led by Associate Professor Shau-Yu Lan at NTU's Physics Department demonstrated an exceptionally efficient method for producing quantum gases. This method involves trapping atoms in a three-dimensional optical lattice created by laser interference and employing electromagnetically induced transparency (EIT) along with adiabatic expansion to rapidly cool the atoms, achieving nearly 100% efficiency with a speed roughly 100 times faster than conventional methods. This innovative technique has significant potential to enhance applications of cold atom platforms in quantum sensing and quantum computing.

Click or Scan the QR code to read the journal article in *Nature Physics*.

Additionally, Prof. Lan's team observed a phenomenon in the generated quantum gas resembling a supernova explosion, termed a "Bosenova" explosion. This offers new insights for quantum simulation and many-body physics research.

ACHIEVEMENTS

Interdisciplinary Collaboration Unveils Key Mechanistic Insights into DNA Recombination



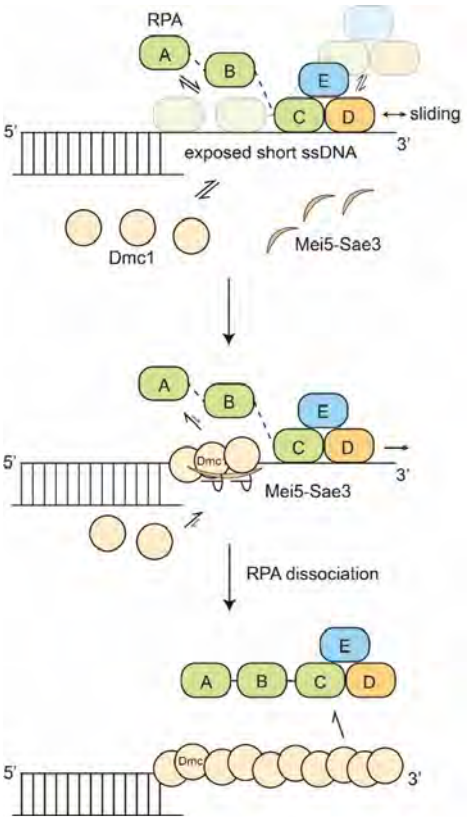
Key Technology: The single-molecule fluorescence microscope used in this study, demonstrates the crucial role of advanced technology in unraveling the complexities of DNA recombination.

Meiotic recombination is crucial for generating genetic diversity and ensuring proper chromosomal segregation during reproduction. This complex process requires recombinases to assemble on single-stranded (ss) DNAs, forming nucleoprotein filaments that facilitate homology search and strand exchange between homologous DNAs. However, ssDNAs are typically bound by abundant, high-affinity ssDNA-binding proteins (RPA), which protect these ssDNAs from degradation. The Mei5-Sae3 protein complex plays an essential role in assembling recombinases onto RPA-coated ssDNA, though the exact mechanism behind this has remained unclear—until now.

An interdisciplinary research team with members from NTU's Department of Chemistry, Institute of Biochemical Sciences, as well as from Osaka University, has employed advanced technologies, including single-molecule FRET and Colocalization Single-Molecule Spectroscopy (CoSMoS), to capture the intricate dynamics of this complex process. By using these cutting-edge technologies and proteins of high purity, the team observed the interactions between Dmc1 recombinase and Mei5-Sae3 on individual DNA molecules with exceptional time resolution, leading to mechanistic insights that traditional ensemble-based approaches could not provide.

The study revealed that the Mei5-Sae3 complex stabilizes Dmc1 nucleating clusters on DNA by preferentially reducing Dmc1 dissociation, ultimately promoting the dissociation of RPA from ssDNA. By using GFP-labeled RPA, the team observed the formation of an intermediate complex containing both Dmc1 and RPA on the ssDNA before RPA dissociation. This groundbreaking discovery unveils the first molecular model of how a mediator-recombinase interaction stimulates recombinase assembly and regulates the recombination process.

The study's co-first authors include NTU undergraduate Chemistry student Chin-Dian Wei, highlighting NTU's commitment to engaging students in cutting-edge research. Other contributing authors are Hao-Yen Chang, Chia-Hua Lu, Chih-Chun Chang, Asako Furukohri, and Stephen Mwaniki, with senior authors Peter Chi (NTU IBS), Hung-Wen Li (NTU Chemistry), and Akira Shinohara (Osaka University) leading the collaborative effort. This research was supported by the National Science and Technology Council (NSTC), NTU, and Osaka University.



Model: The Mei5-Sae3 protein complex stimulates Dmc1 assembly on RPA-coated DNA, shedding light on the intricate mechanisms of DNA recombination.

Group photo of the project research team.

Click or Scan the QR code to read the journal article in *Nucleic Acids Research*.

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ACHIEVEMENTS

Prof. Pisin Chen Wins 2024 Chandrasekhar Prize of Plasma Physics

Prof. Pisin Chen receives the 2024 Chandrasekhar Prize of Plasma Physics.

The Association of Asia-Pacific Physical Societies Division of Plasma Physics (AAPPS-DPP) has bestowed upon Prof. Pisin Chen as the 11th Laureate of the prestigious Chandrasekhar Prize for Plasma Physics. This accolade is awarded to scientists who have made seminal contributions to the field of plasma physics, and Prof. Chen was recognized for his groundbreaking work in advancing the understanding of collective interactions in fundamental plasma physics. His seminal contribution includes the invention of the plasma wakefield accelerator (PWFA) and its acceleration and focusing processes. Incidentally, the European Physical Society conferred the 2023 Hannes Alfven Prize on Prof. Pisin Chen for the same contributions.

The plasma wakefield accelerator (PWFA) operates similarly to how a mother duck creates waves for her ducklings to ride in her wake. A high-current particle beam passing through plasma induces wakefields, allowing a trailing, lower current beam to be accelerated.

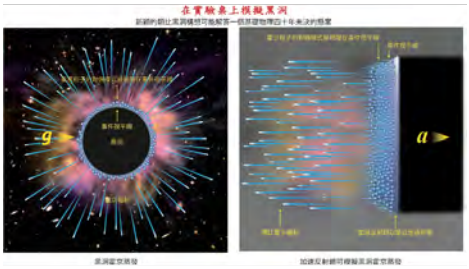
Prof. Pisin Chen is the NTU Chee-Chun Leung Distinguished Chair Professor of Cosmology. He has served as the Director of the Leung Center for Cosmology and Particle Astrophysics (LeCosPA) since its founding in 2007. In 2024, he became the Founding Director Emeritus of LeCosPA.

Prof. Chen earned international renown as the inventor of the plasma wakefield accelerator concept in 1985. His work demonstrated that a relativistic charged particle beam passing through a plasma could excite plasma waves as effectively as a laser pulse, an idea first proposed by Tajima and Dawson in 1979 with the laser wakefield accelerator (LWFA). Today, both LWFA and PWFA are actively pursued worldwide as major plasma accelerator schemes, with basic research being conducted at such prestigious institutions as CERN.

The physics of the plasma wakefield accelerator is often likened to a mother duck creating waves for her ducklings to ride in her wake—much like how a charged particle beam induces plasma wakefields, enabling a trailing beam to be accelerated. The PWFA concept has been explored and developed for decades, advancing research in particle physics and plasma science.

Trained as a theoretical particle physicist, Prof. Chen's contributions extend beyond plasma physics into particle astrophysics, cosmology, and black hole physics. Notably, in 2002, he proposed that plasma wakefield acceleration could explain the origin of ultra-high-energy cosmic rays. In 2017, he proposed using laser-induced relativistic flying plasma mirrors (plasma wakefields) to simulate black hole Hawking radiation in the laboratory—a concept he currently tests experimentally through leading the international AnaBHEL (Analog Black Hole Evaporation via Lasers) Collaboration, which includes research teams from Taiwan, France, and Japan.

This recognition of Prof. Chen's achievements underscores the profound impact of his research on both theoretical and experimental physics. His innovative ideas continue to inspire new explorations into the mysteries of the universe, from plasma physics to black hole phenomena.



An accelerating plasma mirror acts as an analog black hole. The analogy can be appreciated by invoking Einstein's Equivalence Principle. Just like a black hole emits Hawking radiation and traps partner modes near the horizon, the accelerating mirror also emits particles, offering a unique laboratory setting to study black hole phenomena.

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TEACHING & LEARNING

Nobel Laureates Alain Aspect and Yuan-Tseh Lee Discuss Quantum Physics, Interdisciplinary Research, and Global Scientific Challenges at NTU Forum

Distinguished Panel: Prof. Yuan-Tseh Lee (left), Prof. Alain Aspect (center), and Prof. Chiao-Hsuan Wang (right).

On October 15, 2024, Nobel laureates Prof. Alain Aspect and Prof. Yuan-Tseh Lee captivated the audiences at National Taiwan University (NTU) during a public lecture and forum held in the Shih-Liang Chen Lecture Hall. The event was aimed to foster Taiwanese-French cooperation in science and technology, sharing insights into the latest in quantum physics, interdisciplinary research, and today's pressing scientific challenges.

Prof. Yuan-Tseh Lee, a recipient of the Nobel Prize in Chemistry in 1986 for his pioneering research in reaction dynamics, reflected on his lifelong dedication

to science and his aspiration to address future global challenges. Joining him was Prof. Alain Aspect, a 2022 Nobel Laureate in Physics, celebrated for his groundbreaking experiments confirming quantum entanglement and Bell's inequalities. That discovery has been pivotal in advancing quantum mechanics, quantum computing, and communication technologies.

NTU President Wen-Chang Chen opened the event by acknowledging the laureates' contributions and reaffirming NTU's commitment to international scientific collaboration. Prof. Aspect then presented a science lecture titled *Two Quantum Revolutions: From Concepts to Applications*, offering an overview of quantum physics and illustrating how theoretical advancements have been translated into modern technological applications, especially in quantum communication and computing. He described the two quantum revolutions: the first one emerged in the early 20th century with foundational discoveries, leading to technologies like lasers and integrated circuits. The second one, the on-going revolution is marked by the manipulation of individual quantum objects, fueling advancements in quantum computing and communication.

After the lecture, the two laureates engaged in a forum moderated by Prof. Chiao-Hsuan Wang, on the synergy between academic and industrial research. They observed that while industry often benefits from substantial financial resources, academia provides the stability and long-term perspective essential for scientific inquiry. Addressing the role of Artificial Intelligence (AI) in research, they advocated taking a balanced approach, encouraging responsible use of AI alongside interdisciplinary collaboration. Prof. Lee emphasized the importance of transcending traditional academic boundaries, noting that all fields are interconnected. Prof. Aspect concurred, advising students to deeply explore their fields of interest while staying open to collaborative opportunities.

Both laureates urged the students to apply the scientific method in tackling urgent global issues, such as climate change, which demands collaborative efforts across fields from physics to sociology. In a lighthearted exchange, Prof. Lee invited Prof. Aspect to return to NTU, saying, "We hope to see you again, Prof. Aspect. Don't say it's impossible!" Their friendly banter underscored the event's theme of embracing scientific inquiry and collaboration to transform challenges into opportunities.

Prof. Alain Aspect presenting his book, *Einstein and the Quantum Revolution*, to Prof. Yuan-Tseh Lee (left) and NTU President Wen-Chang Chen (right).

The Joint Forum Participants, including NTU students and faculty, as well as students from Taipei European School who were invited by the French Office in Taipei.

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TEACHING & LEARNING

NTU Online Course Wins Award from the Entomological Society of America

NTU Prof. Matan Shelomi of the Department of Entomology was awarded the 2024 Science Communication Award by the Entomological Society of America (ESA). According to an ESA press release last August, this award "recognizes impactful and innovative communication projects or programs that engage diverse public audiences with entomology-related scientific information." Prof. Shelomi received this honor for his massive open online course (MOOC) Edible Insects, hosted on NTU's Coursera platform. The MOOC course is based on his in-person class, Edible Insects, which has been one of NTU's most popular elective courses since its launch in 2018.

Promotional Material for NTU's award-winning Edible Insect Course

Created in collaboration with the NTU Center for Teaching and Learning Development and the Digital Learning Center, this English-taught course consists of six modules, each with 12 short lectures. The topics range from why people eat or avoid certain foods to the global exploration of edible insects, their benefits and costs, how they are produced and marketed, and some non-food insect products. It is the second Coursera MOOC related to insects, and the first anywhere in the world to focus on insects as a food or feed source. Translated into multiple languages, the course has reached a diverse group of learners from Mexico to India, many of whom are not university students. By making this course freely available to anyone worldwide, Prof. Shelomi hopes not only to provide knowledge about the potential role of insects as a food source in the future but also to share his enthusiasm for both insects and adventurous eating with the public.

Founded in 1889, the ESA is the world's largest organization dedicated to the insect sciences, with over 7,000 members. Prof. Shelomi officially received his award at the society's annual meeting in November.

TEACHING & LEARNING

GUPS Makes Its Debut

Si-Yuan Hall Tour Event: Group photo of participants in the inaugural Si Yuan Hall Tour-- including representatives from foreign embassies and the semiconductor industry.

On August 1, 2024, NTU's International College proudly launched the Global Undergraduate Program in Semiconductors (GUPS), the college's first all-English undergraduate degree program. NTU established this program in response to the rapid expansion of the global semiconductor industry and the national policy to cultivate a highly skilled, international workforce to help this industry in Taiwan and the world. GUPS aims to alleviate the current shortage of semiconductor professionals by cultivating talents with expertise and a global outlook.

The program's curriculum is focused on semiconductor science, integrating basic courses in foundational physics, mathematics, integrated circuits, and materials science. Students in the program are thoroughly trained in the fundamentals of semiconductor science. Additionally, through industry internships, these international students gain hands-on experience in Taiwan's leading workplaces. These internships allow students to build local connections, better understand Taiwan's industrial landscape, and contribute to Taiwan's semiconductor talent pool, ultimately strengthening ties between Taiwan and the global job market.

New Semiconductor Facilities: Event participants tour Si-Yuan Hall, soon to be NTU's semiconductor education hub, featuring state-of-the-art labs and classrooms.

Scan the QR code for more information about GUPS.

NTU's Si-Yuan Hall at the Shuiyuan Campus will soon be a dedicated hub for semiconductor education, featuring an advanced electronics lab, a teaching semiconductor lab, and innovative classrooms open to all faculty and students. On September 11, 2024, NTU hosted a "Si-Yuan Hall Tour" event, inviting over 70 distinguished guests, including representatives from foreign embassies, government officials, and international semiconductor industry leaders. The event marked an exciting new chapter in NTU's mission to cultivate the next generation of semiconductor specialists for the international stage.

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TEACHING & LEARNING

NTU x TPOD Higher Education Int'l Forum

The Future University Project Office's October 26 event facilitated valuable discussions on internationalization and educational innovation among universities across Asia, fostering fresh dialogues and collaborations for a more connected and innovative future in higher education.

NTU's Future University Project Office, in collaboration with the Taiwan Professional and Organizational Development Network in Higher Education (TPOD), successfully hosted "NTU x TPOD Higher Education International Forum and Poster Exhibition: What's Next – Future-Focused University" on October 26. Nearly 180 people attended the Forum and Exhibition in person, while about 150 others participated online, in order to discuss opportunities and challenges in international collaboration and innovation in higher education. Representatives from the University of Tokyo, Hitotsubashi University, Seoul National University, and Times Higher Education (THE) were invited to share their experiences from across the Asian higher education landscape. Moreover, at the TPOD Poster Exhibition, 15 universities showcased domestic achievements in "internationalized learning" and "student support systems."

Vice President Kaori Hayashi of the University of Tokyo, Hitotsubashi University President's Special Assistant Hitoshi Aoki, NTU Vice President Shih-Torng Ding, and Dean of Academic Affairs Hong-Ren Wang discuss academic and teaching innovation strategies across Asia.

In his opening remarks, Deputy Minister of Education Ping-Cheng Yeh emphasized the role of higher education in nurturing global citizens and encouraged universities to develop international partnerships. The forum's rich agenda included a morning session on academic and teaching innovations, where speakers discussed the impacts of digitalization, globalization, and social change on higher education. They also shared strategies for enhancing the universities' international competitiveness.

The afternoon session focused on two main themes: "Internationalized Learning" and "Student Support Systems." In the session on internationalized learning, University of Tokyo's Vice President Yuto Yaguchi, THE Director of Consultancy Vivian Lin, and NTU Associate Vice President Kuan-Hao Lee discussed ways in which universities can broaden students' multicultural understanding and global perspectives. The University of Tokyo, for example, introduced its newly established GlobE Center and a cross-border collaboration project with the Asian University for Women in Bangladesh, both designed to create diverse learning opportunities and foster international exchanges.

In the session on student support systems, Seoul National University's Dean of the College of Liberal Studies Ban-Joo Kim, National Cheng Kung University Dean of Student Affairs Liang-Yi Hung, and NTU's Interim Dean of the College of Design and Innovation, Sheng-Lin Chang, discussed how universities can support the students' growth and adapt to the demands of contemporary learning environments.

Furthermore, international experts met with representatives from NTU's Center for General Education, the Graduate Institute of National Development and International Affairs, and the Center for Population and Gender Studies to discuss possible academic collaborations and further dialogue.

International guests visit the TPOD Poster Exhibition, gaining insight into developments in Taiwan's higher education and creating opportunities for mutual learning and collaboration among universities.

Internationalized Learning Session: Exploring ways in which universities can enhance the students' multicultural understanding and global perspective.

Student Support Systems Session: Ways to support students' growth and meet the challenges of modern learning environments.

TEACHING & LEARNING

Major Companies Support OSA's Mentorship Program

Broad Industry Support: Over 70 companies across various industries have participated in NTU's "Interdisciplinary Internship – Mentorship Program," providing approximately 300 students with cross-disciplinary internship experiences.

On September 23, 2024, NTU's Career Center, a unit of the Office of Student Affairs, hosted an event showcasing the "Interdisciplinary Internship – Mentorship Program". Senior executives from leading companies, including TSMC, Delta Electronics, Foxconn, and CTCI Group, shared their successful collaboration stories with NTU, testifying to the program's positive impact in preparing students to seamlessly transition into the workforce.

Mentorship Opportunities: Shi-Wei Chu, NTU's Vice President for Student Affairs, highlights the program's mentorship model, which gives students a unique opportunity to learn directly from senior executives.

This unique program offers internship opportunities across disciplines and industries, with over 70 participating companies in such diverse areas as technology, engineering, finance, cultural arts, and media. Nearly 300 students have been placed in internships that take them beyond their fields of study, to gain valuable workplace insights and skills. Shi-Wei Chu, NTU's Vice President for Student Affairs, emphasized that a distinguishing feature of this program is its

customized mentorship model: “Many executives are personally guiding students, giving them a rare opportunity to learn problem-solving and leadership skills directly from senior leaders. This experience not only prepares them for future careers but also inspires them to feed back to society when they become leaders themselves,” Chu noted.

History major Wei-Shan Tai shared her transformative experience of interning at Inventec. Initially uncertain about her career path, Wei-Shan discovered through her internship that her skills in textual analysis and logical thinking were valuable assets in the tech industry. With newfound confidence, she has taken on a role as an Inventec campus ambassador, eager to inspire her peers to explore such practical opportunities outside their primary fields of study.

Fongchi Lin, Chief Executive Officer of the Career Center, emphasized the center’s role as a bridge between academia and industry: Underscoring the program’s mission to nurture Taiwan’s future talents, Lin explained: “By partnering with numerous companies in various industries, we systematically support students in exploring career paths, developing essential skills, and seamlessly transitioning from academic life to the professional world.”

Related Links: 2024 Interdisciplinary Internship – Mentorship Program Video

Industry-Student Collaboration Success Stories: Senior executives from Delta Electronics, Foxconn, Acer, and Songshan Cultural and Creative Park share the successes of their collaborative efforts in nurturing NTU talents.

Student Success Story: History major Wei-Shan Tai discusses her experience in the tech industry, where she applied her academic skills to discover a new career direction through her internship.

Building Future Talent: NTU’s Career Center serves as a bridge between academia and industry, partnering with a diversity of companies to systematically help students explore, develop, and transition into their future careers.

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PEOPLE

Nobel Laureate Prof. Alain Aspect Awarded NTU Honorary Doctorate

Nobel Laureate Prof. Alain Aspect addressing the award ceremony in his doctoral robe.

National Taiwan University (NTU) hosted an honorary doctorate award ceremony on October 14, at which President Wen-Chang Chen conferred an Honorary Doctor of Philosophy degree on French scholar Prof. Alain Aspect. A 2022 Nobel Laureate in Physics and a leading figure in the field of quantum physics, Prof. Aspect is renowned for his groundbreaking research in quantum optics, atomic optics, cold atom physics, and quantum computing. His research work has opened new frontiers in these fields. Distinguished guests at the ceremony included representatives from the French Office in Taipei and senior NTU officials.

Prof. Alain Aspect (left) receiving the Honorary Doctorate certificate from NTU President Wen-Chang Chen (right).

After receiving his honorary doctorate award, Prof. Aspect delivered the inaugural lecture of the “Raymond Soong Chair Professorship of Distinguished Research,” titled “From Einstein and Bell to Quantum Technologies: Entanglement in

Action." His intriguing lecture explained the experimental proof of quantum entanglement, tracing the path from Einstein's concept of "spooky action at a distance" to the violation of Bell's inequality, culminating in today's advancements in quantum technologies. The audience, which included students and researchers, was particularly intrigued by Prof. Aspect's extensive experience and insights into the academic research landscape and enthusiastically engaged him in discussion. Their dialogue mostly touched on several key challenges in quantum computing today, highlighting the importance of both software and hardware in this field and emphasizing the role of collaboration between academia and industry in advancing research and technology.

President Wen-Chang Chen praised Prof. Aspect's profound contributions to quantum physics, noting his pivotal role in advancing quantum optics and quantum information technologies.

The "Raymond Soong Distinguished Research Lecture" series was established through a generous NT$200 million donation from LITE-ON Technology founder Raymond Soong. The goal of the lecture series is to bring leading international scholars to NTU as guest lecturers, fostering in-depth academic exchanges with NTU's research teams. It is Mr. Soong's sincere hope that the series will broaden the horizons of NTU's faculty and students while offering opportunities for overseas exchanges.

Prof. Aspect's visit marks the beginning of further collaborations between Taiwan and France in the field of quantum technology.

Prof. Alain Aspect delivering the first "Raymond Soong Distinguished Research Lecture."

Left to right: President Wen-Chang Chen, Prof. Alain Aspect, and LITE-ON Technology founder Raymond Soong.

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Honoring a Legacy: 10th Anniversary Memorial Exhibition of Academician Yung-Ho Tsao

The special exhibition attracted students and faculty from within the school, as well as scholars from outside the institution, to visit and explore.

Academician Yung-Ho Tsao (1920-2014) is celebrated as an autodidact pioneer in Taiwan's academic community. Despite having received only a high school education, Tsao embarked on an arduous journey of self-study from library assistant at National Taiwan University (NTU) to highly esteemed academician at Academia Sinica. He was awarded an honorary doctorate from NTU and received numerous international accolades, including the Order of the Netherlands Lion, conferred by Queen Beatrix of the Netherlands, for his research on the 17th-century activities of the Dutch East India Company in East Asia. Tsao was also honored by the Japanese government with the Order of the Rising Sun, Gold and Silver Rays, in recognition of his dedication to preserving historical archives and advancing research in East Asian maritime history, which strengthened academic exchanges between Taiwan and Japan.

In addition to a wealth of books, manuscripts, documents, and photographs, the venue also continuously played a documentary about Tsao Yung-Ho.

NTU's extensive library resources and distinguished faculty provided an ideal environment for Tsao's journey of self-study. In particular, he attended history lectures by Prof. Rokuro Kuwada and helped organize Taiwan-related materials, deepening his expertise in archival research. Tsao's library duties involved cataloging foreign-language books and periodicals, which motivated him to master a number of languages. Through dedicated self-study, he became fluent in Japanese, English, and Dutch, and proficient in Spanish, German, and Latin. His mastery of Dutch archival materials enabled him to produce pioneering research on Taiwan's early history, and his "Island Perspective of Taiwan History" introduced a unique framework for conducting Taiwan's historical studies.

To mark the 10th anniversary of Tsao's passing, NTU Library hosted a special exhibition to celebrate his life and work from October 26 to November 27. The exhibition highlighted Tsao's perseverance, his impressive accomplishments as an autodidact, and the determination required to carry out complicated scholarly research. It further showcased his contributions to historical studies, including his work on The Daily Records of Fort Zeelandia, The Taiwan Documents Series, and Ryukyu Historical Archives. This exhibition allowed visitors to explore the precious resources Tsao utilized in his research and systematically shared NTU Library's various collections with a broader audience.

Ishikawa Yoshino's collection, *Historical Materials of Taiwan: Dutch Documents*, inspired Tsao Yung-Ho to diligently teach himself Old Dutch during his spare time in order to understand the historical texts.

The original edition of *Taiwan Indigenous Administration Records* by Inō Kanori, along with Tsao Yung-Ho's handwritten replica, showcases Tsao's dedicated and meticulous approach to academic research.

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Circling the World on a Flying Platter: NTU Global Food Day

Breaking Language Barriers Through Food: When people sample delicious food together, language no longer seems like a barrier to them. (Photo courtesy of interviewees)

"Hello, bonjour! Would you like to try some French crepes?" In the corner of a bustling classroom, Rosan from France warmly offers her griddle fresh crepes to her new friends. She had stayed up the previous night, cooking these golden, paper-thin pancakes to perfection. Rosan delicately smooths jam over the crepe then expertly rolls it. "Voilà! There you go!" she says brightly, handing over the treat. From the first bite, her friends feel they have been transported to the romantic streets of France!

Rosan's Griddle Fresh Crepes: A Crowd Favorite: Rosan (far left) serves her homemade French crepes, a hit at the event. (Photo by Huang Yu-Chun)

Project Romulus: Breaking Down Barriers Through Food

This taste of crepes was just a sampling of the multicultural feast organized by Project Romulus, a student-led initiative that hosted the "Around the World Potluck Party." Students, both local and international, brought dishes of their

home countries to share with others. The food table was covered with an array of global delights: French crepes, Indonesian spring rolls, New Zealand pies, and Taiwan's famous oyster omelet. "We hope that by hosting this sharing of different foods, we will bring people closer together!" said Andy, the team leader, who enthusiastically introduced the group's mission while recommending his favorite dish.

Project Romulus is the initiative of seven students in the Advanced Leadership Seminar. Andy explained that many international students face challenges trying to participate fully in campus life due to cultural differences. Through hosting activities like this potluck, the team hopes to foster warm connections between international and local students. "Just as Romulus in Roman mythology mediated conflicts between groups, we aim to eliminate discrimination and prejudice on campus," Andy shared.

The potluck party was the first event hosted by Project Romulus, but they only decided to host it after many brainstorming sessions. "We were concerned there would be a low turnout and even planned having small games as a backup," Andy admitted. However, the potluck turned out to be lively and well-attended, with students interacting freely and enjoying each other's company. When it came time for the event to end, everyone felt reluctant to leave, demonstrating that, with a feast of delicacies to sample together, people's cultural and language barriers quickly disappear.

Bringing Cultures Closer, One Dish at a Time

Haru, an exchange student from Japan, prepared a Japanese breakfast staple: natto. The dish's strong aroma attracted curious Taiwanese students willing to give it a try. Haru, meanwhile, found himself drawn to the glistening bowl of minced pork rice on the next table.

Another highlight was Angelica's Burmese salad, which she had brought from a shop in Huaxin Street. "It tastes exactly like what my grandma makes back home!" exclaimed Angelica, a Chinese-Burmese student. Deeply engaged with issues facing Taiwan's immigrant communities, she believes that such sharing of foods is an effective way to bridge cultures. Angelica hopes that holding events like these will help dispel stereotypes about Southeast Asia among Taiwanese students.

The evening concluded with a selection of traditional Taiwanese snacks, leaving everyone with full stomachs and warm memories. The Project Romulus team promised to plan more cultural exchange events. "We hope to create a platform where local and international students can connect and foster a more inclusive campus environment."

Project Romulus Team: The diverse Project Romulus team is united in their mission to eliminate campus prejudice. (Photo courtesy of interviewees)

Breakfast Options: New Zealand pie vs. Taiwanese minced pork rice—such tough options at breakfast time! (Photo by Huang Yu-Chun)

A Multicultural Evening of Laughter and Food: The potluck party concludes joyfully with a hearty mix of languages and laughter. (Photo courtesy of interviewees)

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NTU Unveils Top 100 Contributions: Celebrating a Century of Excellence

NTU Leaders Present the Top 100 Contributions: Left to right: Prof. Ke-Chuan Tsai, Department of Civil Engineering; Associate Dean Shu-Jen Wang, College of Bioresources and Agriculture; Dean Yen-Hsuan Ni, College of Medicine; Dean Yu-Yu Cheng, College of Liberal Arts; President Wen-Chang Chen; Dean Chun-Chieh Wu, College of Science; Dean Po-Lun Jiang, College of Life Science; Dean Shou-Hsia Cheng, College of Public Health; and Dean Tsung-Lin Wu, College of Electrical Engineering and Computer Science.

In anticipation of its looming centennial in 2028, National Taiwan University (NTU) has taken a momentous step to commemorate its legacy. The origins of NTU trace back to the founding of Taihoku Imperial University in 1928. During the subsequent years, the university has striven to establish itself as a leader in global higher education and also has played a pivotal role in numerous historic events.

NTU President Wen-Chang Chen introducing the "Top 100 Contributions" initiative-- to honor NTU's legacy and shape its future.

This year, NTU launched a five-year project to highlight 100 significant contributions that have made a profound impact on Taiwan and the world. These contributions are grouped into three categories: "Academic Excellence," "Industrial and Economic Development," and "Social Contributions." This project supports the theme of the planned centennial celebration-- "A Centenary of Perseverance

Preluding a Century of Prominence," emphasizing NTU's mission to forge ahead while honoring its history.

On November 12, NTU hosted the inaugural "Top 100 Contributions Announcement Ceremony" at which President Wen-Chang Chen, accompanied by deans from the various colleges, unveiled the first 24 contributions selected for this year.

President Chen emphasized that the selection of these particular contributions reflected the spirit of former NTU President Fu Ssu-Nien's vision for NTU: "A University for the Universe." He noted that these achievements symbolize the dedication and efforts of NTU's faculty, students, and alumni during the past century. Looking ahead, President Chen encouraged the entire NTU community to continue innovating and expanding the university's global impact.

In his presentation, President Chen also introduced NTU's centennial projects, including initiatives to nurture future talent, create an exceptional academic environment to attract outstanding faculty, expand research capacity, foster international collaborations, and build a smart, sustainable campus.

In closing, President Chen encouraged all NTU faculty, staff, students, and alumni to work together in making the centennial celebrations a great success. "The centennial will mark a significant milestone. By making concerted efforts, we will inject greater passion and spirit into this historic moment, creating new milestones and ushering NTU into its second century of glory."

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NTU Celebrates Its 96th Anniversary with a Grand Ceremony

Winners of "Student Social Contribution Special Award" – Group Award: "Moonteacha."

On November 15, 2024, National Taiwan University (NTU) celebrated its 96th anniversary with a grand ceremony held at the university's main sports complex. Presided over by President Wen-Chang Chen, the event brought together former presidents, alumni from around the globe, and distinguished guests from various sectors to honor NTU's legacy and ongoing contributions.

In his address, President Chen introduced NTU's recent advancements in teaching, recruitment, and research. He also highlighted the university's international collaborations, including the establishment of joint international R&D centers with partner institutions such as the University of Illinois Urbana-Champaign (UIUC) in the U.S., Kyushu University in Japan, and the University of Grenoble Alps (UGA) in France. These partnerships, along with NTU's role in the formation of an international academic alliance of top universities, are aimed to enhance global cooperation and academic excellence.

President Chen expressing his hope that the NTU community will embrace the spirit of "turning the impossible into the possible."

Honorary Doctors Recognized for Their Scientific and Business Achievements

President Chen introduced two distinguished recipients of NTU Honorary Doctor degrees this year. Prof. Alain Aspect, a 2022 Nobel Laureate in Physics, was recognized for his pioneering research on quantum entanglement and Bell's inequalities, which laid the foundation for quantum technology development. Chairman Daniel M. Tsai of Fubon Group was honored for his exceptional contributions to the finance, telecommunications, and e-commerce sectors, as well as his dedication to social welfare and education.

Chairman Daniel M. Tsai accepting the NTU Honorary Doctor of Laws degree from President Chen.

In his acceptance speech, Chairman Tsai expressed deep gratitude to his alma mater. He warmly dedicated the honor to his father, Wan-Tsai Tsai, the founder of Fubon Group, whose exemplary leadership and philanthropy inspired him. Reflecting on his student days at NTU's College of Law, Tsai emphasized the importance of combining legal knowledge with creativity to achieve innovative business strategies.

Commending Distinguished Alumni and Social Contributions

The ceremony also featured the announcement of ten Distinguished Alumni for 2024, selected for their remarkable achievements in academia, industry, and social service. These alumni exemplify NTU's core educational values and serve as role models for the NTU community. They have been invited to participate as speakers in the NTU Lectures on the Intellectual and Spiritual Pilgrimage series, to share their professional insights and inspiring life stories with current students.

The ten Distinguished Alumni with President Chen (group photo).

Additionally, the ceremony also honored students who demonstrated exceptional commitment to social responsibility and sustainable development. This year, the "Student Social Contribution Special Award" recognized four individual recipients: Cleven Lee (Department of Psychology), Ying-Chieh Huang (Department of Public Health), Julian Chen (School of Forestry and Resource Conservation), and the student group "Moonteacha." These awardees also exemplify NTU's motto, "Integrity, Diligence, Fidelity, and Compassion," for their demonstrated altruism and dedication to the betterment of society.

Looking Ahead to the Centennial

President Chen concluded the ceremony by encouraging the entire NTU community to embrace the spirit of turning the impossible into the possible and uphold the university's aspiration to become a "University for the Universe." Lastly, he underscored NTU's commitment to fostering future leaders who will advance society and tackle global challenges with innovation and compassion.

NATIONAL TAIWAN UNIVERSITY
+886-2-3366-2577
No.1, Sec. 4, Roosevelt Road Taipei, 10617 Taiwan
ntuhighlights.ntu.edu.tw

National Taiwan University
國立臺灣大學

PEOPLE

Dr. Min Kao awards the inaugural Garmin Chair Professors and Scholars

Dr. Min Kao addressing the award ceremony. Dr. Kao is a Distinguished Alumnus of NTU and a member of the U.S. National Academy of Engineering. Since founding Garmin in 1989, he has grown and expanded the company from its satellite navigation origins into a global leader in automotive, outdoor, and fitness technologies. In 2024, Garmin was ranked the second-best employer in the United States by Forbes. Dr. Kao's generosity continues to inspire the NTU community and strengthen its position as a global leader in higher education.

On November 25, 2024, National Taiwan University (NTU) hosted the "Garmin Chair Professorships and Scholar Fellowships" award ceremony. The event was graced by NTU's distinguished alumnus and Garmin founder, Dr. Min Kao, who personally presented the awards to this year's worthy recipients.

This year, these accolades were conferred upon three Garmin Chair Professors and five Garmin Scholars, eight recipients in total. Each awardee will receive an annual stipend of USD 30,000, with a three-year appointment eligible for one renewal.

To support NTU in attracting and retaining top talent, Dr. Kao, through the U.S.-based Kao Family Foundation, generously donated USD 20 million to establish the "Garmin Chair Professorship and Scholar Fellowship Fund" and the "Garmin Faculty Dormitory Construction and Maintenance Fund." These initiatives are

NTU President Wen-Chang Chen (left) presenting a special contribution award to Garmin founder Dr. Min Kao (right).

aimed to bolster the recruitment and retention of exceptional faculty within the College of Electrical Engineering and Computer Science (EECS) and the College of Engineering, enhancing NTU's global academic reputation. Of the donation, USD 6.25 million has been allocated to the faculty housing fund for construction, renovation, and maintenance. Currently, the housing project is over 60% complete.

NTU President Wen-Chang Chen revealed that Dr. Kao had offered to help upon learning about the university's centennial projects. He devised a comprehensive faculty retention program and funded it with an increased donation. The program not only provides competitive stipends but also offers superior housing options to attract domestic and international talent. President Chen expressed his gratitude to Dr. Kao, noting how it has also inspired other alumni to donate and boosted NTU's fundraising efforts in the United States.

An alumnus of NTU's Department of Electrical Engineering and co-founder of Garmin Ltd.—a global leader in GPS technology and smart wearables, Dr. Kao expressed his keen and continued interest in NTU's development, even 50 years after his graduation. He emphasized that exceptional faculty are the core of a competitive university. To strengthen NTU's international standing, he established both the Chair Professorship and Scholar Fellowship fund and Dormitory fund to create a complete talent recruitment package, offering competitive financial benefits and conveniently located, state-of-the-art dormitories. Dr. Kao extended his congratulations to the awardees and thanked NTU and the selection committee for their dedication and remarkable work.

Recipient list:
Garmin Chair Professors:

- Prof. Hsin-Hsi Chen of the Department of Computer Science and Information Engineering;
- Prof. Homer H. Chen of the Graduate Institute of Communication Engineering;
- Prof. Liang-Chia Chen of the Department of Mechanical Engineering.

Garmin Scholars:

- Prof. Chung-Tse Michael Wu of the Department of Electrical Engineering;
- Prof. Chun-Yi Lee of the Department of Computer Science and Information Engineering;
- Prof. Shih-Han Hung of the Department of Electrical Engineering;
- Prof. Chun-Yu Ke of the Department of Civil Engineering;
- Prof. Leigh Aldous of the Department of Chemical Engineering.

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