

愛上第二故鄉

來自希臘的台灣女婿裴思達

In Love with His Second Homeland
—Physicist Stathes Paganis

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緣份在視線接觸的剎那開啓，跨越千里，留駐幸福。

國際知名的粒子物理研究者裴思達，由希臘赴美求學，對來自台灣的女孩一見鍾情。婚後旅居歐美多年，卻在喜獲麟兒後於2014年選擇回到妻子的故鄉——台灣。入籍台灣的裴思達，不僅喜愛台灣的美食，讚嘆優質的社會人文，更對台灣的學術環境及科技生產能力給予高度肯定。

*F*ate intervened when their gazes met. They crossed the world to seize their happiness.

Internationally renowned particle physicist Stathes Paganis went from his native Greece to pursue studies in America, where he fell in love with a woman from Taiwan. They lived for many years in North America and Europe, but after being blessed with a child, in 2014 they chose to move to his wife's homeland.

物理學家 Physics

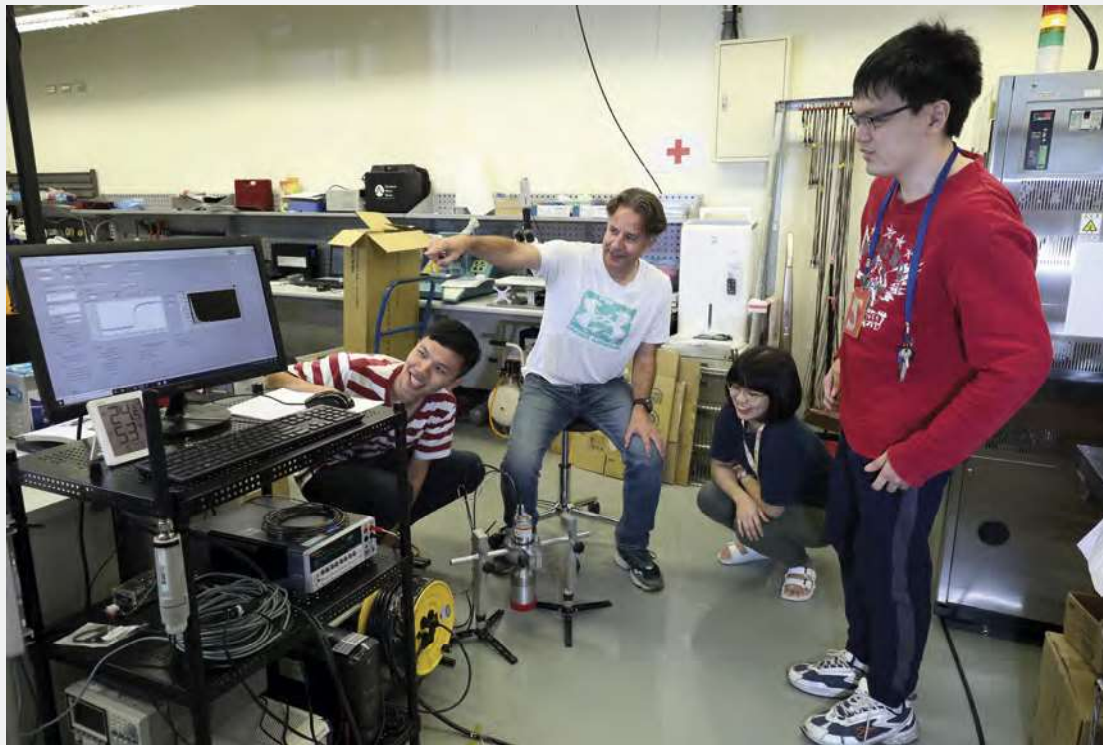




來自希臘的台灣女婿裴思達，2014年帶領妻兒回到妻子的故鄉。入籍台灣的裴思達，以身為台灣人為傲。
In 2014, Greek-born Stathes Paganis moved his family to his wife's homeland, Taiwan. Having become a citizen, Paganis is proud to be Taiwanese.

位於台灣大學的「台灣高能物理聯合實驗室」，主要任務是對製作完成偵測器進行測試與分析。

The main mission of the Taiwan Instrumentation and Detector Consortium lab at NTU is to test and analyze completed particle detectors.



在政府經費支援下，裴思達運用台灣的優勢科技，建置全台第一座「矽基偵測器」，並得到歐洲核物理研究中心緊湊渺子線圈（CMS）實驗，指定為下一代粒子成像量熱器偵測器的生產基地，引領台灣精良的軟硬體實力在國際發光。

迷上物理的科學家

由廣達電腦副董事長梁次震出資所建的次震宇宙館，四面垂直俐落的遮陽板，在日照下，熠熠發光。走進台灣大學這座2018年入圍WAF世界建築獎決選與Architizer A+ Awards國際建築獎特別獎的地標性建物，瞬間把環繞四周，喧擾的車水馬龍摒拒在外。仰望外方內圓的建築中心，挑高38米的觀月中庭天井，讓人有融入宇宙時空的震撼。踏著金屬沖孔板的點狀投影，來到裴思達的研究室，在挑高四米的空間裡，裴思達用溫暖的笑容，回憶起成為台灣人的點點滴滴。

「台灣和我的家鄉很像。」來自希臘的裴思達，不但說的一口流暢的中文，還能閱讀漢字。

「我和太太還是習慣用英文溝通，我都是看電視學中文的。」說起融入台灣生活的經過，裴思達滿臉幸福的笑容。

「希臘的父母和台灣的一樣，都希望孩子要讀一個將來出路比較好的學系。」原本學習電機工程的裴思達，卻因感到無趣勉強完成學士學位後遠赴瑞士，參加三個月的夏季課程，接觸到大型強子對撞機（LHC）計畫後，就深深被物理學及無窮盡的宇宙所吸引。「可能和我的個性有關吧。」生性浪漫的裴思達，喜歡運用天馬行空的無拘思緒，探索人類的起源與星球未來的發展。

推崇台灣的學術環境

「這個場景，就是模擬宇宙混沌，生命起源的樣子。」裴思達興沖沖地來到宇宙館的休閒空間，指著屋頂的裝潢介紹著，眼中閃爍著對宇宙和生命的崇敬與讚嘆。1999年取得德州大學奧斯汀分校粒子物理學博士後，在哥倫比亞大學和威斯康辛大學麥迪遜分校繼續鑽研。2005年到英國雪菲爾大學，由講師到教授，近十年的教學和研究中，裴思達的學術成果更上層樓。

「台灣的學術研究環境很好。」2014年裴思達做了一個重大的決定，選擇舉家回到妻子的故鄉——台灣。他在國立台灣大學物理系任教外，還擔任校內新成立的「粒子物理和粒子天文物理學」小組

With government funding, Stathes Paganis has utilized Taiwan's leading technologies to set up the island's first silicon detector facility, which has been designated as a production center for next-generation calorimetric particle imaging detectors for the Compact Muon Solenoid (CMS) experiment of the Large Hadron Collider (LHC) at the European Organization for Nuclear Research (CERN). This program is showcasing Taiwan's strengths in both software and hardware on the international stage.

Fascinated by physics

Inside the 38-meter-tall "moongazing" atrium of National Taiwan University's Chee-Chun Leung Cosmology Hall, built with a donation from Quanta Computer vice chairman and president C.C. Leung, one has an overwhelming sense of being an integral part of the universe and spacetime. In the four-meter-tall space of his research office, a warmly smiling Stathes Paganis reminisces about his path to becoming a Taiwanese citizen.

"Taiwan is very much like my homeland." Paganis, who comes from Greece, speaks fluent Mandarin and can read Chinese too. "Greek parents are just like Taiwanese parents—they hope their children can study a subject that offers good career prospects." Paganis originally studied electrical engineering, but found the subject dull, so that finishing his undergraduate degree was a chore. But after graduating he attended a three-month summer school in Switzerland, where he came into contact with the LHC program at CERN. He found himself deeply fascinated by physics and the vastness of the universe.

An excellent academic environment

"This scene depicts the primeval chaos of the universe and the origins of life," explains Paganis enthusiastically, pointing to the ceiling decoration in a relaxation space he has led us to, his eyes shining with reverence and admiration for the universe and life. After gaining his doctorate in particle physics at the University of Texas at Austin in 1999, Paganis went on to do research work at Columbia University in New York and then at the University of Wisconsin–Madison. In 2005 he moved to the University of Sheffield in the UK, where he progressed from lecturer to professor, and over the course of almost a decade of teaching and research work his academic achievements also rose to a new level.

"Taiwan has an excellent academic research environment." In 2014, Paganis made a major decision, choosing to move his whole family to his wife's homeland of Taiwan. Beside his teaching duties in the Department of Physics at National Taiwan University (NTU), he heads up the school's Particle Physics and Particle Astrophysics

「台灣高能物理聯合實驗室」為無塵室，主要是將矽晶圓材料製作成偵測器。

The TIDC uses a clean-room environment to produce particle detectors from silicon wafer material.

研究生手中拿著六英寸HGCAL偵測器模組，和裴思達（左）進行討論。

A postgraduate student holds a six-inch HGCAL sensor module as he discusses an issue with Stathes Paganis (left).



裴思達的獨子深獲希臘家族的寵愛，阿姨（中）見到他，歡喜溢於言表。（裴思達提供）

Stathes Paganis' son, an only child, is doted on by Paganis' Greek family, as can be seen in the face of the child's aunt (center). (courtesy of Stathes Paganis)

重視家庭和倫理的裴思達，每年都會帶著孩子回希臘米洛斯島探親。（裴思達提供）

Paganis greatly values family relationships, and takes his son back to Greece to visit relatives every year. (courtesy of Stathes Paganis)



（PPPA）負責人，在他和研究團隊的努力下，讓台灣高科技的軟硬體實力，受到國際矚目。

走進實驗室，裴思達指著位於天文數學大樓實驗室內的高科技精密儀器，「號稱『上帝粒子』的希格斯玻色子，就是2012年由歐洲核子研究組織（CERN）透過這種偵測器發現的。」這是物理界的重大里程碑。在各參與研究團隊（中研院、台大、中大、成大等）的共同努力下，得到科技部經費補助，建置全台第一座同類型原型偵測器，其所有元件都由台灣生產製造。這台「台灣的基偵測器（Taiwan Silicon Detector Facility，TSiDF）」在2019年3月正式營運，並於今年1月，在科技部的主導下，結合所有參與的研究團隊，組成「台灣高能物理聯合實驗室」（Taiwan Instrumentation and Detector Consortium，TIDC）。

在多國先進科學家參觀「台灣的基偵測器」設施後，這項尖端精密實驗儀器，受到來自日本的理化學研究所（RIKEN）、美國布魯克赫文國家研究所（BNL）及麻省理工學院（MIT）等20位科學家的肯定，同時期許這項設施能夠為BNL研究所sPHENIX實驗的追蹤裝置，提供生產空間。

擔任計畫發起人的裴思達表示台灣被世界上最傑出的實驗團隊，歐洲核物理研究中心的CMS 實驗，指定為下一代粒子成像量熱器偵測器的生產基地，未來將提供5,000個感測器模組，而且建造偵測器核心元件的整個製程，都將在台灣進行，這是台灣科技史上重大的榮譽，也是台灣團隊共同的功勞。

2003年，裴思達進入總部位於瑞士的CERN，參與了超環面儀器（ATLAS）實驗，為LHC中四



個探測器實驗之一。2014年，他加入CMS實驗，並成為高粒度量能器（HGCAL）計畫委員會的副主席。在一個全球逾60所學術機構參與的組織中擔任此職位，無疑是聯絡台灣學術界與尖端科技的橋梁。

愛上來自美麗之島的女孩

曾經在美國紐約、德州、加州三地的實驗室間奔波七年的裴思達，單調的生活中，他用運動自我調劑。「那時候我常常一個人到金門大橋跑步看日落。」說起當時同儕間的一個笑話，裴思達仍然忍俊不已。由於實驗室地處偏遠，生活機能不佳，例如在紐約州的布魯克赫文國家實驗室（Brookhaven National Laboratory）工作時，有研究生便戲稱在BNL做事，簡直是「Be iN hell」，無聊得宛如地獄。「來到台灣，感覺生活就像天堂般美好。」

「在德州遇到我一生的最愛。」在弟弟經營的咖啡廳裡，裴思達遇到來自台灣的女學生劉

group (PPPA), which was newly established after his appointment.

Leading us into a laboratory in NTU's Astronomy-Mathematics Building, Paganis points out a high-tech precision instrument and tells us, "The Higgs boson—also known as the 'God particle'—was detected at CERN in 2012 using a detector like this." The discovery of the Higgs boson marked a major milestone in the world of physics. With funding from the Ministry of Science and Technology (MOST), a group of prestigious Taiwanese institutes including Academia Sinica, NTU, National Central University and National Cheng Kung University constructed Taiwan's first prototype of a similar detector, with all of its components manufactured in Taiwan. The Taiwan Silicon Detector Facility (TSiDF) began operating in March 2019, and in January 2021, under the guidance of MOST, the participating teams together formed the Taiwan Instrumentation and Detector Consortium (TIDC).

After visiting the TSiDF, leading scientists from many countries expressed the hope that it could provide a manufacturing base for particle tracking detectors for the Pioneering High Energy Nuclear Interaction eXperiment (sPHENIX) at Brookhaven National Laboratory in the USA.

As the initiator of the program, Paganis states that after being designated by the world's most outstanding experimental team—the one running the CMS experi-

ment at CERN—as a manufacturing center for the next generation of calorimetric particle imaging detectors, the TSiDF will supply 5000 sensor modules, and will set up a complete production process for core detector components, all of which will be done in Taiwan. This is a proud event in the history of Taiwanese science and technology, and is a shared achievement of the Taiwanese teams.

In 2003 Paganis entered CERN, which is headquartered in Switzerland, to work on the ATLAS experiment (ATLAS: "A Toroidal LHC Apparatus"), one of the four main particle detector experiments at the Large Hadron Collider. In 2014 he joined the CMS experiment, and became deputy chair of the High-Granularity Calorimeter (HGCAL) project institution board. His holding this position in an organization involving more than 60 academic institutions around the world was undoubtedly a bridge enabling him to come into contact with Taiwan's academic community and cutting-edge technology.

Falling in love

When Paganis was in the US, he spent seven years shuttling between laboratories in New York, Texas and California. A joke that was current among his colleagues at the time still makes him laugh. The laboratories were typically in remote locations with little access to amenities; for example, Brookhaven National Laboratory is in a rural part of Long Island, New York State. Postgraduate



裴思達經常帶著孩子接近大自然，他覺得台灣有許多地方，和他的出生地——希臘米洛斯島 (Milos Island) 很相似。(裴思達提供)
Paganis often takes his son outdoors into the natural world. He feels that Taiwan is similar in many ways to his birthplace, the Greek island of Milos in the Aegean Sea. (courtesy of Stathes Paganis)

裴思達唯一的寶貝兒子在台灣接受國民教育，完全融入在地生活。

The Paganises' son attends an ordinary school in Taiwan and is fully integrated into local life.



鈺屏，「當時我只知道福爾摩沙意思是美麗之島。」在目光接觸的剎那，裴思達立即被劉鈺屏吸引。「我對她是一見鍾情。」墜入愛河的裴思達，因為妻子，而認識台灣。

「希臘和台灣有很多相似的地方。」經常帶著孩子騎腳踏車，或去海邊游泳的裴思達，父子倆徜徉在海水中，彷彿回到地中海的希臘。「我們結婚很久後，才有孩子。」期待多年的愛情結晶，受到雙方祖父母的寵愛。「我們每年都會帶著孩子回希臘和台灣。」重視家庭和倫理，是雙方的共識。為了減輕三地往返奔波的辛勞，而且離家多年的妻子，越來越思念家鄉，疼愛妻子的裴思達，毅然放棄英國的教職，帶著妻小回到台灣。「我太太是客家人，又很會做菜。」回到新竹芎林，台灣女婿對客家傳統習俗感到親切又有趣，好客的裴思達經常邀請好友鄰居們共聚一堂，品味妻子的好手藝。

說起台灣美食，裴思達如數家珍，香雞排、臭豆腐配啤酒，乾麵加上一盤豬頭肉，宜蘭鴨賞、蔥油餅，更是造訪時一定要吃的美食。

台灣女婿愛上台灣

「我有台灣身分證，我是台灣人。」說著流

利的中文，裴思達以身為台灣人為傲。「台灣真的有很多地方比別人強，只是你們自己還不知道。」其實裴思達決定定居台灣時，也是經過深思熟慮，仔細觀察評估過的。「台灣的醫療品質和制度真的很棒，交通建設也很便利。」比起歐美，台灣較低的稅金和油價，更是吸引他的重要因素。「而且台灣的治安很好。」裴思達唯一感到困擾的，就是近些年來，空氣品質越來越差。「有時候會讓我過敏。」他認為未來應該鼓勵用電動摩托車取代現有的汽油機車。部份不遵守交通規則的車輛和行人，裴思達也認為應該參考歐美的嚴厲罰則，遏阻違規。

「台灣的基礎教育很好。」裴思達放心把家安置在台灣，唯一的寶貝兒子也在台灣接受國民教育，完全融入在地生活。假日固定和球友練球的裴思達，在足球場上快樂奔馳歡呼。「足球講究的是團隊默契，做實驗也是一樣。」

跨越半個地球，粒子物理權威裴思達，不僅在台灣作育英才，更遇到最佳合作團隊，產出源源不絕的研究能量，和政府共同打造與國際同步接軌的優越產學合一環境，讓更多精英樂於留在台灣發展。「我熱愛這片土地，也相信明天會更好。」裴思達說。 □

students would joke that life there was so dull that to work at BNL was to “Be iN heLL.” By comparison, says Paganis, “Coming to Taiwan is like living in heaven.”

“In Texas, I met the love of my life.” In a coffee shop run by his brother, Paganis met a student from Taiwan: Liu Yu-ping. It was love at first sight. Through his future wife, he learned about Taiwan.

“There are many similarities between Greece and Taiwan.” Paganis often takes his son out cycling or to the seaside. When they go swimming in the ocean it is as if he were back home in Greece, beside the Aegean Sea. While living in the UK, he recounts, “Every year we would take our son back to both Greece and Taiwan.” Both Paganis and his wife set great store by family relationships. To reduce the burden of traveling between three locations, the loving husband Paganis boldly decided to give up his teaching position in the UK and bring his family to Taiwan. “My wife is Hakka, and she’s a wonderful cook.” As a son-in-law in a Taiwanese family from Qionglin, Hsin-chu County, Paganis finds Hakka traditional customs both touching and interesting. A very hospitable person himself, he often invites friends and neighbors to his home to spend time with his family and enjoy his wife’s excellent cooking.

Speaking of Taiwanese foods, Paganis reels off a list of favorites including deep-fried chicken cutlet, stinky tofu with beer, and dry noodles with a platter of pig’s head meat, and says that whenever he goes to Yilan he makes a point of eating the local smoked duck and scallion pancakes.

A son-in-law who loves Taiwan

“I have a Taiwanese ID card. I’m Taiwanese!” Speaking fluent Mandarin, Paganis is proud to be Taiwanese. “Taiwan really does have a lot of strengths compared with other places—you just don’t realize it yet yourselves.” In fact, Paganis decided to settle in Taiwan only after a great deal of in-depth consideration and detailed observation. “The healthcare system and quality of treatment in Taiwan really are outstanding, and the well-developed transport networks make life very convenient.” Compared with Europe and North America, Taiwan’s lower taxes and fuel prices were also important factors that attracted him. “Taiwan offers a very safe, low-crime living environment too.” The only thing that bothers Paganis is that in recent years air quality has been deteriorating. “Sometimes it gives me an allergic reaction.”

“Taiwan’s basic education is very good.” Paganis had



台灣大學次震宇宙館挑高38米的觀月中庭天井，讓人有融入宇宙時空的震撼。

The 38-meter-tall atrium of the Chee-Chun Leung Cosmology Hall at NTU gives one an overwhelming sense of being part of the universe and spacetime.

no qualms about settling his family in Taiwan. His beloved son and only child goes to an ordinary Taiwanese school and is completely integrated into local life. Paganis himself, who trains with amateur footballers at weekends, runs happily around the pitch shouting for joy. “What matters in football is team spirit; the same goes for conducting experiments.”

Having traveled halfway around the world, in Taiwan respected particle physicist Stathes Paganis not only educates outstanding students, he has also been able to collaborate with the most outstanding teams, generating boundless research capabilities and working with the government to create an excellent internationally oriented environment of integration between industry and academia, thus enabling more elite personnel to be happy to remain in Taiwan and pursue their careers here. “I love this land, and I believe tomorrow will be even better,” says Paganis. □

(Lee Shan Wei/photos by Jimmy Lin/
tr. by Robert Taylor)