



My Teaching Career at 臺大

By Professor Ken Palmer

I was born in Melbourne, Australia where my parents were also born. My father's parents were born in England and emigrated to Australia in 1913. On the other hand, my mother's parents were both born in Melbourne. One of my great-great-grandmothers was Irish and was transported to Australia at the age of 19 for the crime of unlawful assembly. At that time Ireland was ruled by the British with an iron hand. Australia was originally established by the British as a convict colony in 1789. At that time there were many poor people in England. Many poor people resorted to crime in order to feed themselves. Some were transported to Australia merely for stealing a loaf of bread.

Others, like my Irish great-great-grandmother were transported for political crimes. So like many Australians I have an ancestor who was a convict.

First Time at 臺大

I took my Bachelor's degree at the University of Melbourne with major in mathematics. Then I studied my PhD at the Australian National University. After my PhD I did a postdoc in England. I have been at 臺大 since 2002 but actually this is not the first time I have worked here. I was an associate professor of mathematics for 3 years during the 70's. I came here after the

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■ 學歷：

1970 澳洲國立大學博士（數學）

1966 澳洲墨爾本大學理學士（數學）

■ 簡歷：

2002- 迄今 國立臺灣大學教授

2000-2002 澳洲墨爾本大學高級講師

1984-2000 美國邁阿密大學教授

1981-1984 美國邁阿密大學副教授

1980-1981 紐西蘭Massey 大學講師

1979-1980 德國波恩大學研究員

1977-1979 澳洲大學講師

1975-1977 德國魯爾大學研究員

1972-1975 國立臺灣大學副教授

1971-1972 英國南安普敦大學研究員

■ 研究興趣：常微分方程、動力系統、金融數學

■ 授課課程（近5年）：金融數學、金融數學特論、財務最佳化、對局理論、機率導論、計算金融

■ 個人網頁：<http://www.geocities.com/remlapk2003/>



postdoc in England. How did this happen? When I was studying in Canberra, I met some students from Hong Kong and became interested in Chinese culture. So while in England I applied for some jobs in Hong Kong without success. I knew two students from Taiwan and they suggested I apply for a job in Taiwan. So I applied to 臺大 and was lucky enough to receive an offer which I accepted. In fact my office was right next to the one I have now. So this time returning to 臺大 was almost like returning home.

About a dozen of the professors now in the department (or recently retired) were there in the 70's; some were professors then and others were students. When I came to 臺大 I was only 2 or 3 years older than some of the graduate students. I lived in the same place as some of the graduate students who were teaching assistants. One day they and some others were going to lunch and I asked if I could go with them. From that time on we became good friends. We went hiking in the mountains of Taiwan many times in the course of which we travelled all over the island. While I was in Taiwan, I studied Chinese. In my first year, I had nine hours of one-on-one lessons per week at the 臺北語文學院. However in class I used English. In my third year I tried to use Chinese in class but it did not go very well. When I left 臺大 after three years, I went to Germany on a Humboldt fellowship. Two of my graduate student friends went to Europe almost at the same time, one to Paris and the other to Edinburgh (this was 林松山). Naturally I visited them while I was in Germany. We also took a trip through Scotland together. Most memorable was a couple of days on the Isle of Skye where we had no transport and had to walk everywhere.

Sojourn in Germany, Australia, NZ and USA

After leaving 臺大, I spent three years in Germany, two years in Australia and one year in New Zealand, all temporary positions. Then I finally found a permanent position at the University of Miami and stayed there until 1997. It is interesting

that my neighbour in the Department of Mathematics at the University of Miami was from Taiwan. He was the brother of 陳文成 who had been a mathematics student at 臺大. Just like Taiwanese people, I had to apply for a green card in order to stay in the USA. However I had always wanted to return to my homeland. So in 1997 I took leave without pay and went back to Melbourne. I had several interviews but was not successful in obtaining a job. So I decided to study a Master's degree in finance. While I was studying my degree I obtained a job at La Trobe University in Melbourne. However the Department of Finance at the University of Melbourne eventually offered me a job and since it was a higher position and I was finding finance quite interesting, I took it. During this job (2000-2002) I visited Taiwan for the first time since 1979. I was struck by how much Taiwan had changed since I had left. The most striking thing was the free discussion of politics in public. When I was in Taiwan in the 70's, people discussed politics only in private. (After I arrived in Taiwan in the 70's, I wrote a letter to a lady who had taught me a bit of Chinese in England. I mentioned that my Chinese was not good enough to talk about politics. She immediately replied, writing in big capital letters: IN TAIWAN ONE DOES NOT DISCUSS POLITICS.) A year later I visited Taiwan again. I was invited by 林松山, who at that time was the Dean of Science at 國立交通大學. During my visit in Taiwan, one of 松山's colleagues asked me if I would be interested in applying for a job in Taiwan. While I was in Taiwan, I gave a talk in Chinese. After I left Taiwan in the 70's, I had tried to keep up my Chinese and it had improved a little. Later that year I realized that I was no longer happy working in a department of finance. So I applied for a job in the mathematics department at 臺大 and was lucky enough to get it. I think I was helped by the facts that many of the people in the department knew me (in fact, the chairman at that time had been my student), I had been reasonably active in my research field of ordinary differential equations and I had teaching and



research experience in finance which fitted in well with the fact that the department was intending to set up a program in financial mathematics.

Return to 臺大

So in 2002 I came back to 臺大. Coincidentally my new office was right next to the one I had had before. Nothing much had changed in the buildings. A couple of floors had been added to the 新數學館. However the department had changed in nature. There was much more emphasis in research than there was in the 70's; people were much busier; there were many more administrators; many more graduate students; a PhD program; also there were many conferences and many lectures given by visiting professors. I was invited to give lectures at several universities. Also I had to submit an application for a grant from the 國科會. In the 70's this grant was half my salary. Now it is a much lower proportion. However for me the important part is the generous travel allowance which enables me to attend conferences and visit colleagues in the summer. New also was the 國家理論科學中心 in 新竹. In the year I came there was a special program in dynamical systems, which is my main research field. This program was organized by 林松山, who coincidentally had changed fields from partial differential equations to dynamical systems, the same as mine. So I went to 新竹 every Thursday and gave two hours of lectures every week for quite a few months. So I was quite busy in the initial few months at 臺大 and apart from preparing classes, most of my time was spent in preparing other lectures and writing proposals.

Teaching : Language Problems

Regarding classes, it was a condition of my employment that I give my classes in the Chinese language. At the time I left Taiwan in the 70's I still found it impossible to give a lecture in

Chinese. However I kept on learning Chinese and since my wife was Chinese, I did have opportunities to speak the language with her and her friends. So when I came back to Taiwan in 2002, I was able to deliver a (admittedly not very good) lecture in Chinese. Still when it came to my first class in calculus, I was a little nervous. Since my Chinese name looks like an ordinary Chinese name, many of the students were probably not aware that I was a foreigner. So there was a kind of hush when I walked in and some students appeared to be surprised when I started lecturing in Chinese. I did not make a special preparation for my lectures. I did not write out the whole lecture in Chinese as that would have taken too long. Since the textbook was in English, my notes were also in English. However, before the lecture, I would go through the notes and imagining myself speaking in Chinese. Every now and then I would come across a mathematical term for which I did not know the Chinese. You must understand I did not go to school in Taiwan. So I had never heard anyone deliver a lecture on mathematics in Chinese. There were many simple terms from high school mathematics for which I did not know the Chinese. Take, for example, the word triangle. I had an English-Chinese mathematics dictionary which was published in China. The translation given there for triangle was 等邊三角形. However the students told me that this was not the customary term in Taiwan: here one said 正三角形. In the end I bought some textbooks on high school mathematics so that I could learn Chinese mathematical terms. In a way it would have been better for me if the textbook was in Chinese rather than in English. Even though I gave my lectures in Chinese, I am not sure how well the students understood me. (However it did not seem to affect their performance; the grades of my students were similar to the grades in the other sections which were taught by Taiwanese professors). Some requested that I use English. I told them that the department wanted me to use Chinese. However I am sure they would have found my

English even harder to understand as I speak with an Australian accent.

I rarely write Chinese characters on the blackboard because even though I know the character I often cannot remember how it is written. (In the past I used to write letters in Chinese but now on the computer, it is not necessary to write the character: you just point at the one you want and so you do not remember them so well.) Also even if I know the character, I write it rather slowly and it would waste a lot of time. One semester in calculus we did use a Chinese textbook. In order to avoid writing Chinese characters on the blackboard, I typed out lecture notes in Chinese and showed them on the screen. On the blackboard I would just do examples for which only mathematical symbols were necessary. Of course, preparing the lecture notes took a little more time than when I wrote them in hand in English.

Teaching : Financial Mathematics

It happened that just when I came to 臺大, they were setting up a financial mathematics program. Given that I had a master's degree in finance and had two and a half years experience teaching in a finance department, it was predictable that I would be teaching financial mathematics. So it has turned out. It has been very interesting to develop courses in financial mathematics. I now have a set of lecture notes for a one-year course in financial mathematics. In the process of preparing these notes, I have learned a lot myself. I am also grateful to the mathematics department for giving me complete freedom to design these courses in any way I found suitable. I have found that the students in this course to be very interested in the subject matter. Also many of them come from other schools such as business or engineering. I have supervised the theses of nine master's students. I have found working with these students to be the most interesting and most satisfying teaching experience I have had.

Research

While I have been at 臺大, my research in ordinary differential equations and dynamical systems has made good progress. Each year there has been a conference in dynamical systems held at 新竹. Originally these were arranged by 林松山 from 交通大學 and Shui-Nee Chow from Georgia Institute of Technology. Usually about a dozen foreign mathematicians were invited to each of the meetings. Many of these were old friends of mine. So in Taiwan I have had the opportunity to discuss research with former colleagues. Also I have been able to invite two of my co-authors to 臺大 for short visit; these kinds of visits are very important for research. Furthermore, with the support of the 國科會, each summer I have made trips to Europe or USA to attend conferences and visit my co-authors. The result has been that my research has flowered at 臺大. Last year I published a record (for me) number of papers.

Administration

As a faculty member one cannot escape administrative duties and so I have been asked to serve on various committees. The administrative staff in the department have gone out of their way to help me. Also the three chairmen I have served under have all been very helpful also.

Closing Words

There is no doubt that the 臺大 mathematics department is very strong. However the department has not achieved the international recognition it deserves. The department of mathematics at 臺大 is probably as strong as any in Australia but I do not think many people in Australia or even Taiwan realize this. I am very happy and feel very privileged to have had the opportunity to work at 臺大. (本文策畫／大氣學系郭鴻基教授)