

A Tribute to Dr K. T. Leung

On the occasion of A Celebration of Life for Dr K. T. Leung on August 25 (Sunday) 2019

Cosette, Michelle, Nick and Dan, relatives, friends and former students of Dr Leung, it is my honour to stand here to pay tribute to my dear teacher.

Fifty-six years ago I was fortunate to become a first-year undergraduate in the HKU Faculty of Science. During the orientation period before school began I already heard a lot from my seniors about a legendary figure in the Department of Mathematics — a very young, energetic and charismatic person, an erudite scholar and an excellent teacher, by the name of Dr K. T. Leung. We learnt that Dr Leung obtained his D. Phil. from Universität Zürich under the tutelage of the famed Dutch algebraist B. L. van der Waerden. When Dr Leung joined the Department in 1960 his appointment as a senior lecturer made the headline of *Wah Kiu Yat Po* [華僑日報], as in those days it was a rare event for such a young Chinese scholar to be recruited to such a senior post by HKU, an old British-style university.

Although Dr Leung did not teach us in our first year we studied from Dr Doris Chen propositional calculus and set theory based on the carefully written lecture notes by Dr Chen and Dr Leung, followed by linear algebra based on another set of lecture notes written by Dr Leung. A few years after I graduated, the former set of lecture notes became the book *Elementary Set Theory* the first part of which was well-known to many generations of sixth-form school pupils; the latter set of lecture notes became the book *Linear Algebra and Geometry* that was equally well-known to many generations of HKU undergraduates reading mathematics. These two sets of lecture notes were instrumental in luring me into my future pursuit of mathematics and shaping my mathematical sense and taste. In my second year I actually came face to face with this legendary figure who taught us algebra from the classic *Modern Algebra* by van der Waerden.

In those years I learnt a lot from Dr Leung, inside and outside of the classroom. During the summer vacation of my second year Dr Leung and Dr Chen, by giving up their own vacation, conducted as an extracurricular activity a seminar course for a group of us who were interested in studying for ourselves more mathematics. For the first time we got a taste of this kind of learning experience Dr Leung brought back from the European Continent. Another European academic tradition he brought back to the Department is the outing (der Spaziergang), initially with the whole Department walking up from HKU to Victoria Peak, discussing mathematics or other topics along the way and having a

pleasant lunch together in Aberdeen afterwards. This activity becomes an annual departmental tradition with the route varying each year since the early 1960s to this date! The most recent one both Dr Leung and I participated in took place two years ago (in January of 2018).

In September of 1967 I went to Columbia University for graduate study. A month after arrival I was happy to meet Dr Leung with his family who stopped over New York on their way to University of Chicago on study leave. It was on that occasion that I first met Kam Ching, a younger brother of Dr Leung who worked then at the Goddard Institute for Space Studies affiliated with Columbia. Michelle was then a toddler just learning to speak. It was eight years later that I met the Leung family again (with the added members Nick and Dan) after I returned to teach at HKU. Dr Leung played an important role in bringing me back to serve the Department that had nurtured me into a mathematician and a mathematics teacher.

I always hold Dr Leung in high esteem as my teacher, while Dr Leung right from the beginning regarded me as a colleague and friend. As he and I were the two early birds of the Department, almost every morning before 8:00 a.m. I could enjoy a pleasant chat in his room while drinking freshly brewed coffee which he prepared. I jokingly dubbed the coffee “Westernized Wong Lo Kat [番鬼王老吉]” inspired by a famous local brand of Chinese herbal tea, while he jokingly remarked that I drank it by adding “impurity [雜質]” referring to the cream I added in. Dr Leung was a person with a strong sense of humour, which is quite essential for leading a fulfilling life. Humour is infectious, so even if I always regard him as my teacher, frequently I went overboard in making fun of each other. But through this exchange of making fun of each other I learn something valuable — tolerance and self-mockery. With tolerance and self-mockery one will learn to be lenient with others and strict with oneself [待人以寬, 律己以嚴]. So I always learn from Dr. Leung!

I have been very fortunate in having spent many happy years as a colleague of Dr Leung. We went swimming every day before taking lunch, together with Kai Man and Philip (also Gilbert, the technician of the Department before he emigrated to Canada). Naturally Dr Leung was the leader [隊長]. I was honoured to be named by him as the “whip of the team [隊鞭]” whose duty was to encourage, prompt or coax — anything short of using force — all team members to jump into the freezing water on a cold and cloudy winter day. During lunch we talked about various topics including teaching and learning of mathematics. For instance, the idea of organizing public lectures to promote interest in mathematics among school pupils came up one day, later to become the

successful “Rambling in Mathematics Public Lecture Series [數趣漫話]”, the Chinese title being coined by Dr Leung, which ran from 1994 to this date.

Of the many collaborative projects with Dr Leung I like to tell the story of one that would be known to very few people. In April of 1978 I went with him and a few good friends on an academic visit to Guangzhou [廣州]. In those days, unlike now, this kind of academic visit would not be given too much publicity locally. We took the opportunity of Easter break to go out of town for a few days so that almost nobody in HKU would know of it. After coming back three of us wrote an article describing what we discussed with colleagues in mathematics education over there and expressed our view of the on-going reform in mathematics education in mainland China at the time, with the article bearing a pseudonym “Lam Man Jim [林文沾]” to cover up our identity. You can guess whom the last character refers to. With his erudition in classical Chinese Dr Leung told me that in ancient Chinese text the character “tim [添]” is non-existent with “jim [沾]” employed as a substitute [古字無添, 以沾作添].

However, that visit was treated in very high profile in Guangzhou with school teachers and mathematics educators in Guangzhou as well as from other cities in China flocking to listen to the keynote lecture by Dr Leung on the “new maths movement”, because mainland China had been for a decade shut herself off from the rest of the world. I will never forget the scene I saw on that morning upon arriving at the hall of the National Sun Yat Sen University [中山大學禮堂]. The rows of racks in front of the huge hall were choke-full of bicycles, more than a thousand of it, neatly placed and closely packed. Stepping into the lecture hall we saw an ocean of people waiting eagerly for the big event. Dr Leung’s lecture delivered on that very morning, which gave a succinct account of this world-sweeping movement (except in mainland China!) with his perceptive foresight and analysis of its shortcoming, must have exerted significant influence that contributed to the subsequent development of mathematics education in mainland China.

Dr Leung was accompanied on that visit by Cosette and the three children. Dan may remember we played table tennis in the game room of Dongfang Hotel [東方賓館] in the evenings. He was a small boy at the time so that I could pass myself off as a passable player before him, who even told his father afterwards that Siu was a good ping pong player who could make the ball spin!

Dr Leung is a scholar of the old school — erudite and wise, dedicated and assiduous, honest and sincere, kind and generous, modest but confident, gentle yet

principled, refined with good sense and elegant taste. That was an era free of things like ranking, citation index, impact factor, research assessment exercise, professional development indicator and the like, which, notwithstanding their original well-meaning intention of maintaining the standard, tend in time to distort the ecology of the post-secondary community and undermine scholarship which a university should value. The often quoted 1990 report *Scholarship Reconsidered: Priorities of the Professoriate* by Ernest Boyer lists four diversified, separate yet overlapping areas of scholarship which dynamically interact, forming an interdependent whole — Discovery, Integration, Applications and Teaching. The report quotes a saying (K. E. Eble), “Do less longing to arrive at the higher goals of academe and more about making wherever you are a liveable and interesting and compassionate community.” By his own deeds and words Dr Leung taught us how a true scholar should act to strive for intrinsic excellence instead of extrinsic matters like grants and awards. Our teachers are still remembered with gratitude in our hearts half a century later not because they had received how many research grants or written how many papers published in so-called threshold journals, but because they taught us, showed us what a scholar and academic is like, and exerted influence upon us to serve the next generation.

I like to sum up my tribute to my teacher, mentor, colleague and friend in one line, which is borrowed from the inscription on a plaque put up in memory of the great 18th-century Swiss mathematician Leonhard Euler in his hometown Riehen (near Basel). A German friend of Dr Leung once said that Dr Leung spoke German better than a German, so out of respect allow me to quote the line in my broken German. I am sure Dr Leung, with his usual kindness shown towards his students, would not laugh at my inadequacy.

“Er war ein grosser Gelehrter und ein gütiger Mensch (He was a great scholar and a kind man).”

Siu Man Keung

August 25, 2019.

[Added Note on August 29, 2019 : Days in Les Tilleuls]

In the summer of 1995 after thirty-five years of dedicated service in HKU filled with solicitude for students and commitment to teaching Dr Leung left Hong Kong with Cosette to settle down in France, where they bought a house in a village in Angé of the Loire Valley. The beautiful house is surrounded by a garden extending into a wood at the back, with seven caves next to the house. They named the place Les Tilleuls [邊園], while I playfully, but not without respect, gave Dr Leung the title “Wise Man of the Seven Caves [七穴智叟]”.

During their fifteen some years in Angé my wife Fung Kit and I had the fortune of spending four pleasant visits to their cozy home. During the first visit in August of 1997 Dr Leung, knowing my strong interest in history of mathematics, took us specially to visit the nearby town Descartes (originally known as La Haye en Touraine), where René Descartes was born, with its museum on Descartes. When we visited the Leungs again in late October of 2000 after attending the Centennial Symposium of *L’Enseignement Mathématique* held in Genève, Switzerland, we found a newly constructed swimming pool in the garden. Because the winter in France was too cold I did not carry out my duty as the “whip of the team” that time, but did one day help Dr Leung to clean the pool. During the next two visits, once in July of 2001 and the other time in August of 2004 we could enjoy a swim in the pool every morning during our visits. We did not pay Les Tilleuls any further visit after 2004, and about five to six years later the Leungs sold the house and returned to settle down in Hong Kong. We heard from them that they sold the house for a good price because of the presence of the swimming pool in the garden.

I particularly remember one night after having a sumptuous dinner at an exquisite French restaurant within an hour’s drive from their home, we spent another hour sitting in the garden of Les Tilleuls, talking and drinking tea in leisure. Dr Leung turned off all the lights in the house so that it was all dark around, but looking up we saw the clear sky filled with stars, a sight that I had missed for many years in a city like Hong Kong. In the 1950s and 1960s as young boys and girls we could still enjoy that kind of surroundings when we went on camping in the more rural parts of Hong Kong.

於「梁鑑添博士生命禮讚」中向梁博士致敬
2019年8月25日(星期日)

蕭文強

梁師母、Michelle、Nick、Dan 及梁博士的眾多親友與學生，我能在此向我至愛的老師致敬，深感榮幸。五十六年前，我有幸成為香港大學理學院一年級學生。於開學前的迎新期間，我已從學長當中風聞數學系的一位傳奇人物梁鑑添博士——一位十分年青、充滿活力及魅力，而又博學的學者

及優秀老師。又知悉梁博士於蘇黎世大學 (Universität Zürich)，由著名的荷蘭代數學家 B. L. van der Waerden 指導下獲取哲學博士學位。當梁博士於 1960 年加盟數學系時，即已破格獲聘為高級講師，此事亦為《華僑日報》所報導。在當年英國殖民地時期，一位年青華人學者在香港大學 (一所英式大學) 獲聘如此高級的教職，實屬罕見。

縱使一年級時，梁博士沒有教我們，但由郭麗珠博士教授的「命題運算」及「集合論」乃基於郭、梁兩位博士擬定的講義。及後的線性代數講義，亦是梁博士撰寫的。我畢業後數年，前一份講義付梓而為《初級集合論》[*Elementary Set Theory*] 一書，其中上冊 (全書分上、下二冊) 為一代又一代中六生所熟知，而後者印行為《線性代數及幾何》[*Linear Algebra and Geometry*]，同樣為好幾代港大數學系的學生所熟知。這兩份講義引領我後來研究數學及形成我對數學的意識與品味。升讀二年級，我終能親炙這位傳奇人物的教誨，並得他親授 van der Waerden 經典名著《近世代數》[*Modern Algebra*]。

那些年，於課堂內外我從梁博士所學甚多。於二年級的暑假，梁郭兩位博士自願放棄其假期，為有興趣學習更多數學的學生舉辦課外研習班。我們第一次感受到梁博士從歐陸帶回來的學習體驗。另一個梁博士帶到數學系的歐洲學術傳統是全系修學旅行 (der Spaziergang)。起初，港大數學系同仁由學系辦公室步行至太平山頂，邊走邊談數學，亦談及其他話題，之後抵香港仔歡享午膳。這活動成為學系的周年傳統，自 1960 年代至今，每年路線或有不同。最近一次梁博士及我均有參加的這項傳統活動，是兩年前 (2018 年 1 月) 的事。

於 1967 年 9 月，我前往哥倫比亞大學進修，抵步後一個月喜見梁博士光臨。他與家人往芝加哥大學作學術休假，途中路經紐約。其時，也是我首次結識梁博士的弟弟鑑澄，他在哥倫比亞大學的 Goddard 太空研究所工作。當時，Michelle (梁博士之長女) 仍在牙牙學語的孩提時期。八年後我返回港大任教，再遇梁博士一家 (此時，加入了 Nick 和 Dan 兩位成員)。我能返回培育我成為數學工作者及數學教師的港大數學系任教，其間梁博士擔當了重要的角色。

我一向視梁博士為老師，至為尊敬，但梁博士從一開始便把我視作同事及朋友。由於我們均為最早返到學系的二人，每朝早上八時前便已到達，我可享用梁博士親自烹調的咖啡並閒聊，(他喜歡黑咖啡) 我戲稱之為「番鬼王老吉」—— 王老吉為廣東著名涼茶 (苦茶)，反之，他也取笑我加進雜質 (指加進去的奶)。梁博士極富幽默感，這是充實生命的要素。幽默感有其感染力，雖然我以他為老師，亦經常踰越師生界限，互相取笑。不過，透過這樣的互相取笑，我學會了寶貴的一課 —— 寬容及自嘲。從寬容與自嘲，學會「待人以寬，律己以嚴」的道理。可見，我總是向梁博士學習！

我十分幸運，能與梁博士愉快共事多年。我們每天午膳前均前往大學的泳池暢泳，(曾) 啟文及 (王) 必弘亦同往 (學系的技術員 (陳) 捷敏於移民加拿大前亦有參與)。梁博士自然成為隊長，我榮幸地被他指派為「隊鞭」，其責任為，縱於冬天的寒霧日子亦鼓勵、促使或哄誘 (除了不動用武力！) 大家跳入冰冷的水中。午膳時，我們談天說地，包括數學的教與學。例如為提升中學生對

數學的興趣而舉辦的公開講座，其意念即由此而生。梁博士為這講座系列起名為「數趣漫話」，由 1994 年起直至今天仍在舉辦。

我與梁博士的合作眾多，但有一項鮮為人知。於 1978 年 4 月，我與梁博士及幾位好友赴廣州作學術交流。跟今天不同，當時這樣的交流不會太公開。我們利用復活節假期的數天離境，港大同事幾乎無人知道。回港後，我們其中三人就當時的討論及對內地進行數學教育改革的見解寫成一文，並以筆名「林文沾」刊行，以隱藏我們的身份。你可猜出最尾一字所指是誰？以他對古文的博學，梁博士指出：「古字無添，以沾作添」。

然而，該次廣州之行受到高規格接待。由於內地十年來對外封閉，廣州及其他有些城市的教師及數學教育工作者蜂擁而至，聆聽梁博士關於「新數學運動」的專題演講。我不會忘懷該日早晨抵達中山大學禮堂的情景，數以千計的自行車整齊地泊滿在大禮堂前的擺放架；進入禮堂，我們看見等候這件盛事的人海。梁博士簡要地敘述了這場席卷全球（內地除外）的運動，並詳盡闡述其前瞻及對其弊端的分析。演說肯定對中國內地數學教育嗣後的發展帶來重要的影響及貢獻。

當時梁師母及三位孩子亦同行。Dan（幼子）也許仍記得我們每個黃昏在東方賓館遊戲室玩乒乓球。他其時尚幼，誤以為我技術高超，並告訴其父，蕭（我）為乒乓高手，能開出旋球！

梁博士為老派學者——博學及充滿智慧、投入及刻苦、坦率及誠懇、和藹及慷慨、謙虛但自信、溫文但講求原則、細緻及有品味。該時期沒有人談論排行榜、徵引指數、影響因子、研究評審、專業發展指標等。設立這些的原意，可能是為了維持學術水平，但卻可能異化高等教育的生態，並且矮化了大學應守護的學養價值。為人常引用 1990 年 E. Boyer 的《學養之再思：教授群體之優次》列出四項不同卻又互相關連的學養範疇——發現、綜合、應用及教學。該報告引用了 K. E. Eble 的一句話「少作一點達至更高的學術目標的渴望，但多做一件事，令你身處的工作環境成為宜居的、有趣的及富同情心的社群」。梁博士以其言行身體力行，教我們作為學者應爭取內在的優秀而非外在的資助和獎項。半世紀後，我們仍從心底想念及感激我們的老師，非因其獲得多少研究資助或發表過多少份刊登於頂級學報的論文，而是由於他們教導及展示給我們學者當是如何，並影響我們如何培育下一代。

讓我以 18 世紀瑞士偉大數學家歐拉（Leonhard Euler）的家鄉 Riehen（Basel 附近）為紀念歐拉而設的匾額上的一句話，總結我對吾師、同事亦為好友的致敬。梁博士的一位德國朋友曾經說過，梁博士的德文比德國人說得更好。故此，以尊敬之心，我以蹩腳德文讀出，我相信以梁博士對其學生之包容，不會見笑。

「Er war ein grosser Gelehrter und ein gütiger Mensch
（他是一位偉大的學者，也是一位善良的人。）」

2019年8月29日附後記：於 Les Tilleuls 的歲月

梁師在港大服務了三十五年，一直對學生親切關心，對教學充滿熱誠。於 1995 年夏天梁氏伉儷離港移居法國，購入位於 Loire 谷 Angé 小鎮的一所宅第。漂亮的小屋為花園所環抱，延伸至後面的樹林，與七個洞穴毗鄰。他們把該地方命名為邊園[Les Tilleuls]，我則不失恭敬戲稱梁博士為「七穴智叟」。

梁氏伉儷居於 Angé 的十五多年期間，我與內子鳳潔有幸四度暢訪。第一次為 1997 年八月，梁博士知我對數學史的鍾愛，刻意帶我們到鄰近的 Descartes 鎮（原名 La Haye en Touraine），那兒是笛卡兒 [René Descartes] 的出生地，設有笛卡兒博物館。我們在 2000 年十月參加在瑞士日內瓦舉行的 *L'Enseignement Mathématique* 百周年紀念研討會之後，再度拜訪梁博士伉儷，發現在其花園新建的泳池。因法國冬天十分寒冷，我沒執行「隊鞭」之職，卻於某天與梁博士一起清潔泳池。其後兩次拜訪，一次在 2001 年 7 月，另一次在 2004 年 8 月，每天早上都在泳池暢泳。自此，我們沒有再次到訪邊園。五、六年後，梁博士賣出大宅，返港定居。據聞由於花園建有泳池而能以好價出售。

我尤其記得一晚，由邊園驅車約一小時到一所精美的法國餐廳享受盛宴之後，再坐在邊園的花園中品茗暢談又一小時。梁博士關掉屋中所有燈火，以便溜覽漆黑中的天上繁星，這是在香港多年無法一睹的景象。我們在 1950 至 60 年代的青蔥歲月，仍然可以在香港的郊區野營時見到如斯的環境也。

[原英文本見諸 https://hkumath.hku.hk/web/memory/memory_ktleung_main.php，黃毅英、陳葉祥譯。]