

Preface

This special issue is dedicated to Professor Congxin Wu (吴从炘) of Harbin Institute of Technology (HIT) to celebrate his establishment and contributions in mathematical teaching and research over a period of more than 60 years.

A native of Minqing in Fujian Province, Professor Wu was born in Shanghai on July 24, 1935. Due to health issues in his youth, he nearly missed entire primary and junior middle schools. Despite of that, he successfully passed the Fujian provincial entrance examination and was admitted to the very top provincial middle school — Fuzhou Middle School where his interests and talent in mathematics were inspired and developed, highly motivated by his mathematics teacher Mr. Jieguan Wang (王杰官). At age of 20, Professor Wu graduated in 1955 from the Department of Mathematics at Northeastern People's University, after receiving rigorous and systematic mathematics training under the supervision of Professors Zejian Jiang (江泽坚) and Lizhi Xu (徐利治). Since then he has devoted his entire teaching and research career in HIT. He was promoted at 26 as an exceptional case from Assistant Lecturer to Associate Professor. In 1978, soon after the Cultural Revolution, Professor Wu was in the very selective first group nationwide to receive promotion to Full Professor, and in 1986 he was granted a PhD Advisor by the State Council of China.

Professor Wu has published a total of 20 books and more than 440 papers in broad areas of analysis, geometry and algebra. Among his many important achievements, his research on calculating Orlicz space norms, the characterizations of the nuclear of perfect spaces, and topological algebras of infinite matrices have had broad impacts in the fields. In particular, his formula of calculating the Orlicz space norms broke the bottleneck in the study of geometric structure of Orlicz spaces, and amounts to a historical contribution to the theory of Orlicz space geometry.

Prof. Wu is very enthusiastic in educating students and promoting talents. He has advised more than 110 graduate students (about half of that PhD's). He also has a strong passion in teaching, and taught many undergraduate courses over a long period of time including calculus for science and engineering students. He has been a plenary speaker in many nationwide symposia on teaching. More recently, at age of over 80, he took a long trip to Nanning to give a series of lectures on "mathematical teaching and research from one-variable calculus perspective", which benefited many young college and university teachers in Guangxi Zhuang Autonomous Region.

Prof. Wu is a kind gentleman who enjoys a variety of interests. He likes table tennis, basketball, golf, bridge and photography. In spite of high myopia, he was a member of HIT's second faculty table tennis team when he was young, while in college he once won a university championship as a member of the mathematics department team. Prof. Wu has strong interests in history and geography. Since 2011, adding to his previous tours, he has managed to visit near 1000 "national key cultural relics protection units". He took

photos, wrote travel diaries, and provided proposals for the protection and management of these important cultural relics. Prof. Wu also organized the publication of 《八闽情—未名梦》, which is a collection work of his high school classmate Lin Zexun (林则勋), a literator.

Prof. Wu treasures friendship. He has great respect to his predecessors such as Zejian Jiang, Lizhi Xu, Zhaozhi Guan, Chang Li, Qingjun Lu, Benwang Sun and Jieguan Wang, who had provided many advices and support to him. To express gratitude to his high school mathematics teacher who inspired his mathematics interests, Prof. Wu established Wang Jieguan scholarship at his alma mater Fuzhou First Middle School.

Prof. Wu is a distinguished mathematician with originality and a fruitful educator who has had impact on the careers of so many. He won great respect from peers, friends and students. His extraordinary services and contributions, especially to the development of mathematics and related disciplines at HIT, over sixty years which is a whole cycle in traditional Chinese chronology, are greatly appreciated. During July 24-25, 2015 a conference on Analytical Mathematics and its Applications in honor of Professor Wu was held at HIT with over 70 participants from all of over China and abroad. The conference marked the establishment of Congxin Scholarships Foundation based at HIT, and its first awards to four outstanding undergraduate or graduate students in mathematics or related disciplines. This special issue was also initiated at the conference. It contains papers from some of Professor Wu's academic friends and former students whose research areas are closely related to those of Professor Wu's. We wish to take this opportunity to thank the authors for their contributions and generous support. Finally, let us wish Professor Wu a healthy and happy life for many years to come.

Lixin Cheng, Bo Guan, Junde Wu (Guest Editor)