

MATHEMATICAL WRITINGS OF L. C. HSU

Vol. I Analysis & Computing

徐利治数学作品集

第 I 卷 分析与计算



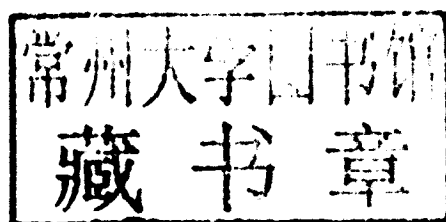
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Editor's Preface

We have the great pleasure to edit Hsu's mathematical writings which had been published within the years 1944—2009. Professor L. C. Hsu was born in the September of 1920, and has been doing and teaching mathematics for more than 60 years. A proper compilation of Hsu's papers into 2 volumes is now first published just before the birth-date of Hsu's 90 years old, so Hsu gladly asks us to convey his sincere thanks to the university authority of Dalian University of Technology for the effective support of publication of his mathematics works. As editors we also sincerely wish the interested readers would possibly get some imaginations as well as inspirations from some selective reading of Hsu's writings.

Liu Xin-yan, Yu Hua-dong
July, 2010

Name List of some Co-authors and Joint Authors Appearing in Vol. I

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Main Topics Concerned in Vol. I

- (1) Asymptotics
- (2) Approximation
- (3) Numerical Integration
- (4) Integral Representation
- (5) Series Summations
- (6) Interpolation
- (7) Others

Main Topics Concerned in Vol. II

- (1) Inversion Formulas
- (2) Möbius Inversions
- (3) Stirling Numbers, etc
- (4) Series Summation Methods
- (5) Others

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Vol. I

Analysis & Computing

A SURVEY OF SOME RECENT DEVELOPMENTS
OF APPROXIMATION THEORY IN CHINA

L. C. Hsu

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Introduction. Approximation Theory has been developing in China for nearly 30 years. As is generally admitted, this branch of mathematical analysis had happily received much more consideration than others in China. During my short visit to Aachen of West Germany last September, Professor P. L. Butzer and his colleagues asked me why Approximation Theory could become such a highly developed branch in Chinese mathematics during past decades. My answer to this question consists of mentioning two basic facts; first, a majority of Chinese analysts have realized that Approximation Theory is itself a very useful and beautiful subject that has lots of practical applications to modern computational mathematics, and second, the well-known Russian schools with their books and treatises translated into Chinese language actually brought a big influence upon the community of Chinese mathematicians.

Among others we should mention the late Professor K. K. Chen, the first mathematician in China who set up a