The 19th Workshop on Markov Processes and Related Topics (BNU and Fujian Normal U, July 22-26, 2024)

Mu-Fa Chen

2024 年 7 月 26 日

Organization Committee

Da-Yue Chen, Zeng-Hu Li, Yong-Hua Mao,

Jian Wang, Feng-Yu Wang, Xian-Ping Guo,

Ying-Chao Xie, Xi-Cheng Zhang

Local Organizers:

Jian Wang, Huo-Nan Lin, Lu-Jing Huang,

Shu-Kai Chen, Rong-Juan Fang, Bing-Yao Wu

Three Times of the Workshop

Time \ Info	Participants	Talks
1^{st}(2002)	37	20
15^{th}(2019)	150	52 + 9 Posts
19^{th}(2024)	>196	75 + 8 Posts

Forthcoming three books

- On the mathematical theory of globally optimal planned economic systems (In Chinese) by L.K. Hua, 1987;(New Ed.), Eds. C, Hao-Kun Shi.

- New Theory and Real Convince of L.K. Hua's Economic Optimization (In Chinese) by C., Ying-Chao Xie, Bin Chen, Qin Zhou, Ting Yang

- Selected Papers on Popular Science   4000

Beijing Normal University Press 2024

About the history

New edition of Hua's book.

In 1957, introduced Liontief's input-output method (Nobel Prize 1973), studied a new theory on economics. Reworked on the topic during 1982–1985, published 12 short articles. Wrote the book above in 1985, ignored all of the above articles. Hua passed away in 1985. The book was published in 1987. It was waked up luckily only after 37 years (2021). Perron-Frobenius Theorem 28 years: 1957–1985. Re-examination, hard worker

Personal experience

Since 1988, we have worked on the topic. **36** years. Essential progress was mainly made in the past three years or more, coorperated with colleagues at Jiangsu Normal U. Markov Chains Structure matrix $A \rightarrow$ transition probab matrix P **New!** Math Economics. Nobel prize 1969–2023: 55 terms, 93 people.

http://math0.bnu.edu.cn/ chenmf/
演讲视频:
[19] [20] 华氏经济优化理论与马氏链

Problems

- Key/core in national economy, GDP. Equilibruim. $x_n = x_0 P^n$, $\textcolor{red}{x_0 = x_n P^n}$

- Testing stability of economic system.

- Ranking & classification of products.

- Economic prediction & adjusting.

- Economic structure optimization.

- Effective algorithms. Programmable, intelligentizable. Wheather forecasting.

Wish the workshop to be successful!
Thank you, everybody!
谢谢大家!

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