

数理解析研究所講究録987

経済の数理解析

京都大学数理解析研究所

1997年4月

Editor's Preface

This volume is a collection of papers presented at the symposium on mathematical analysis in economic theory, which was held at the Research Institute of Mathematical Sciences (Kyoto University) during October 7-9 in 1996.

The symposium was organized as a part of our long-run project to bring together those mathematicians who are seriously interested in getting new challenging stimuli from economic theories with those economists who are seeking for effective mathematical weapons for their researches.

The topics discussed in the symposium might be classified under the following four headings.

- Nonlinear Dynamical System and Economic Fluctuations,
organized by Kazuo Nishimura.
- Stochastic Analysis and Mathematical Finance,
organized by Shigeo Kusuoka.
- Convex Analysis and Optimization Theory,
organized by Toru Maruyama.
- Aspects of General Equilibrium Theory,
organized by Masao Fukuoka.

It is my pleasure to release this proceedings consisting of significant contributions by truly leading researchers in the discipline.

On behalf of the programme committee, I would like to extend my cordial gratitude to all of the participants for their constructive and warm cooperations.

February 20, 1997

Toru Maruyama

経済の数理解析
研究集会報告集

1996年10月 7日～10月 9日

研究代表者 丸山 徹(Toru Maruyama)



目 次

I. Nonlinear Dynamical System and Economic Fluctuations		
1. A Weak Version of Poincaré-Bendixson Type Theorems for n Dimensional Spaces-----		1
岡山大・経済	藤本 喬雄(Takao Fujimoto)	
東洋大	藤本 佳久(Yoshihisa Fujimoto)	
2. On the Stationary Sunspot Equilibria in a Continuous Time Model with a Predetermined Variable and an Unstable Root-----		6
京大・経済研	新後 閑 禎(Tadashi Shigoka)	
3. NON-LINEAR DYNAMICS AND CHAOS IN OPTIMAL GROWTH-----		22
京大・経済研	西村 和雄(Kazuo Nishimura)	
慶大・経済	矢野 誠(Makoto Yano)	
4. CONTINUITY OF THE TOPOLOGICAL ENTROPY-----		69
東大・数理	岩井 慶一郎(Keiichiro Iwai)	
5. Topological Optimal Chaos-----		84
京大・経済研	西村 和雄(Kazuo Nishimura)	
京大・経済研	新後 閑 禎(Tadashi Shigoka)	
慶大・経済	矢野 誠(Makoto Yano)	
東大・数理	岩井 慶一郎(Keiichiro Iwai)	
II. Stochastic Analysis and Mathematical Finance		
6. Evaluation of Investment Opportunity under Entry and Exit Decisions-----		107
東工大・経営システム工学	白川 浩(Hiroshi Shirakawa)	
7. The Pricing Formula for Commodity-Linked Bonds with Stochastic Convenience Yields and Default Risk-----		125
一橋大・商	三浦 良造(Ryozo Miura)	
一橋大・商	山内 浩嗣(Hiroaki Yamauchi)	
8. 金利の期間構造と確率偏微分方程式-----		138
東大・数理	楠岡 成雄(Shigeo Kusuoka)	

Ⅵ. Convex Analysis and Optimization Theory		
9. Optimal Policies for Optimization of Associative Functionals-----		143
	九大・経済	岩本 誠一 (Seichi Iwamoto)
10. CONSTRUCTION OF MORSE FLOWS-----		164
	慶大・理工	菊池 紀夫 (Norio Kikuchi)
11. Nonconvex-valued Differential Inclusions in a Reflexive Separable Banach Space-----		169
	名大・経済	立石 寛 (Hiroshi Tateishi)
Ⅶ. Aspects of General Equilibrium Theory		
12. EXISTENCE AND OPTIMALITY OF EXTENDED LINDAHL EQUILIBRIA IN A LARGE PUBLIC GOODS ECONOMY WITH CONGESTION-----		175
	慶大・経済	中村 慎助 (Shinsuke Nakamura)
13. PAYMENT SYSTEM AND SYSTEMIC RISK-----		195
	一橋大・経済	山崎 昭 (Akira Yamazaki)
14. Nonparametric Restrictions of Dynamic Optimization Behavior Under Risk: The Case of Time-Additive Expected Utility-----		214
	東大・経済	神谷 和也 (Kazuya Kamiya)
	Univ. of Chicago	Hidehiko Ichimura
15. OPTIMIZATION APPROACHES TO VARIATIONAL INEQUALITY PROBLEMS-----		245
	京大・工	福島 雅夫 (Masao Fukushima)