

Subject	Data Science in Economics(Special Lectures)	Subject	Data Science in Economics(Special Lectures)		
Instructor	TAKUYA ISHIHARA	Instructor	TAKUYA ISHIHARA		
Day・Period	Mon.2Period				
Eligible Participants	3・4				
Course Numbering	EAL-ECO389J				
Credit(s)	2Credits				
Course of Media Class					
Main Subjects					
Object and Summary of Class	<p>漸近理論は計量経済学で用いられる推定量や検定の性質を調べるのに非常に有用である。この講義では、計量経済理論に必要なとなる漸近理論を紹介する。この講義では以下の内容を扱う：Portmanteau定理、Prohorovの定理、連続写像定理、Slutskyの補題、Levyの連続性定理、デルタ法、一致性、漸近正規性、最尤法、一般化モーメント法。</p> <p>Google classroom code: jla2z3st</p> <p>Asymptotic theory is the primary method used to examine the properties of econometric estimators and tests. This course offers the asymptotic theory for econometrics. The keywords of this course are as follows: Portmanteau theorem, Prohorov's theorem, continuous mapping theorem, Slutsky's lemma, Levy's continuity theorem, delta method, consistency, asymptotic normality, maximum likelihood estimation, generalized method of moments.</p>				
Goal of Study	<p>この講義の目標は計量経済学に必要な漸近理論を理解することである。</p> <p>Participants are expected to understand the asymptotic theory for econometrics.</p>				
Contents and Progress Schedule of the Class	<p>以下の内容を扱う。The following contents will be discussed.</p> <ol style="list-style-type: none"> 1. 確率的な収束概念 / Stochastic convergence 2. 特性関数 / Characteristic functions 3. デルタ法 / Delta method 4. 極値推定量 / Extremum estimators 5. 極値推定量の一致性 / Consistency of extremum estimators 6. 極値推定量の漸近正規性 / Asymptotic normality of extremum estimators 7. 漸近分散の一致推定 / Consistent asymptotic variance estimation 8. 2段階推定量 / Two-step estimators 				
Practical business					
Language Used in Course	英語 / English				
Evaluation Method	宿題に基づいて成績を評価する。 / The evaluation will be based on assignments.				
Textbook and References					
書名	著者名	出版社	出版年	ISBN/ISSN	資料種別
Asymptotic Statistics	A. W. van der Vaart	Cambridge University Press	2000	0521784506	参考書
U R L					
Preparation and Review					
Attached File					
In Addition	本講義には基本的な数学、統計学、計量経済学の知識を必要とする。 / This course requires a basic knowledge of mathematics, statistics, and econometrics.				
Last Update	2024/02/16 14:16:40				

One-credit courses require 45 hours of study. In lecture and exercise-based classes, one credit consists of 15-30 hours of class time and 30-15 hours of preparation and review outside of class. In laboratory, practical skill classes, one credit consists of 30-45 hours of class time and 15-0 hours of

preparation and review outside of class.