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### 2<sup>nd</sup> Annual International Conference on

### **High Frequency Exchange Rate Dynamics:**

## Econophysics and Econometric/Theoretical Analysis Based on the EBS data sets<sup>1</sup>

**Date & Time:** Friday, December 15, 2017 9:15 - 16:50

Venue: GRIPS Research Meeting Room 4A (4th Floor), Roppongi, Tokyo

### 9:15 - 9:30 Introductory Remarks

Takatoshi Ito (Columbia University and GRIPS) Welcome Remarks

### 9:30 - 10:30 Econometric/theoretical analysis I

Michael Melvin (UC San Diego) (and Duncan Shand)
"Modeling Returns to Currency Speculation: The Importance of Accurate Trading Costs"

Discussant: Fumio Hayashi (GRIPS)

#### 10:30 - 10:45 Coffee Break

### 10:45 - 11:45 Econometric/theoretical analysis II

Carol Osler (Brandeis) (and Alasdair Turnbull) "Dealer Trading at the Fix"

Discussant: Masahiro Yamada (Hitotsubashi University)

# 11:50 - 12:15 Survey and research direction of econometric analyses with high-frequency (EBS) data

Takatoshi Ito (Columbia University and GRIPS) Masahiro Yamada (Hitotsubashi University and JBIC)

<sup>1</sup> This conference is organized with support from the Grant-in-aid (kaken), Japan Society for the Promotion of Science (JSPS), 17H00995.

### 12:15 - 13:30 Lunch

### (Business lunch for Core participants on future research direction)

### 13:30 - 14:15 Econophysics I

Misako Takayasu (Tokyo Institute of Technology)

"Review of PUCK Models: From Microscopic Dealer model to Renormalized Macroscopic Dynamics"

### 14:20 - 15:05 Econophysics II

Hideki Takayasu (Tokyo Institute of Technology)

"Financial Brownian Motion: Applications of Field Theory, Langevin Equation and Knudsen Number"

15:05 - 15:20 Break

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Kiyoshi Kanazawa (Tokyo Institute of Technology)

"Trajectory Analysis of High Frequency Traders: Ecology of Their Strategies"

### 16:05 - 16:30 Discussion: Future Research Agenda

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Presentation 30 min; discussant 15 min; and floor discussion, 15 min.

### Lunch

Lunch will be provided to speakers, coauthors and discussants. Observers are requested to go outside of the building to have lunch and come back.

### **Pre-Registration Required**

This conference is open to researchers, practitioners, the authorities, and the public in general. The conference will be conducted in English (no translation). However, pre-registration (by December 8) is needed due to space constraint and security. If you would like to attend, please send an email to <a href="tel:tio2@grips.ac.jp">t-ito2@grips.ac.jp</a> to inquire with you name and affiliation.

# List of participants (Speakers, Coauthors and Discussants) In Alphabetical Order

### Hayashi, Fumio

Professor, National Graduate Institute for Policy Studies

### Ito, Takatoshi

Senior Professor, National Graduate Institute for Policy Studies, and Professor, School of International and Public Affairs, Columbia University

### Kanazawa, Kiyoshi

Assistant Professor, Institute of Innovative Research, Tokyo Institute of Technology

### Melvin, Michael

Professor, Rady School of Management, UC San Diego

### Osler, Carol L

Professor of Finance in the Brandeis International Business School

### Takayasu, Hideki

Senior Researcher, Sony Computer Science Laboratories, and Specially-Appointed Professor, Institute of Innovative Research, Tokyo Institute of Technology.

### Takayasu, Misako

Professor, Research Unit Leader of Advanced Data Analysis and Modeling Research Unit, Institute of Innovative Research, Tokyo Institute of Technology

### Yamada, Masahiro

Research Affiliate, Institute of Economic Research, Hitotsubashi University, and Economist, Country Credit Department, Japan Bank for International Cooperation

## 政策研究大学院大学(GRIPS)へのアクセス



本学にお越しになるには、都営大江戸線六本木駅、東京メトロ日比谷線六本木駅、東京メトロ千代田線乃木坂駅をご利用ください。

### ▶ 都営大江戸線 を利用する場合

六本木駅から徒歩5分、7出口から出て、ファミリーマート方面へ信号を渡ります。ファミリーマート前から、右(乃木坂方面)へ進むと、左手に細い道(龍土町美術館通り)がありますので、その道を進みます。突き当りまで来たら、左に進み、横断歩道を渡ると、本学の正門です。

### ▶ 東京外口日比谷線 を利用する場合

六本木駅から徒歩 10 分、4A 出口から出て、六本木交差点を左に曲がります。そのまま乃木坂方面へ直進し、ファミリーマートを過ぎ、少し進むと、左手に細い道(龍土町美術館通り)がありますので、その道を進みます。つき当りまで来たら、左に進み、横断歩道を渡ると、本学の正門です。

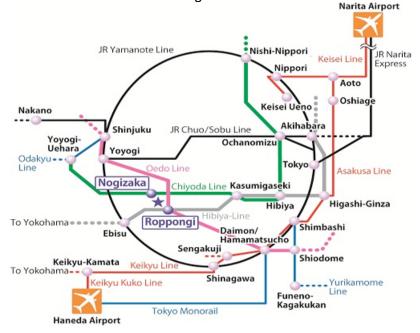
### ▶ 東京外ロ千代田線 を利用する場合

乃木坂駅から徒歩6分5出口から出て、左へ進みます。六本木トンネルを通り終えたら、横断歩道を 渡らず、そのまま左に進みます。しばらく進むと、本学の南門です。

<日本語> <a href="http://www.grips.ac.jp/jp/about/access/">http://www.grips.ac.jp/jp/about/access/</a></a><br/>
English> <a href="http://www.grips.ac.jp/en/about/access/">http://www.grips.ac.jp/en/about/access/</a>

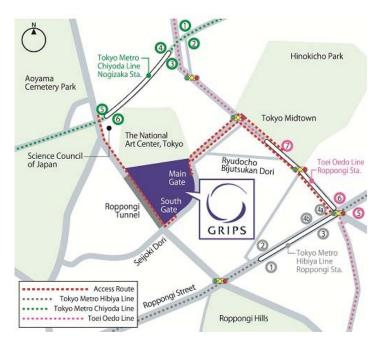
### Getting to GRIPS

The GRIPS building is located right in the center of Tokyo with convenient access by public transport. Both **Nogizaka** station on the **Chiyoda line** and **Roppongi** station on the **Oedo line** and **Hibiya line** are within 10 minutes walking distance.



### **Access by Public Transport**

- From Narita Airport to Roppongi via Tokyo by Narita Express: 1 hour 30 minutes
- From Narita Airport to Roppongi via Nippori by Skyliner: 1 hour 15 minutes
- From Haneda Airport to Roppongi by Tokyo Monorail: 40 minutes
- From Tokyo to Roppongi: 17 minutes



- From exit no. 7 at Roppongi station on the Toei Oedo Line: 5 minutes walk
- From exit no. 4a at Roppongi station on the Tokyo Metro Hibiya Line: 10 minutes walk
- From exit **no. 5** at **Nogizaka station** on the **Tokyo Metro Chiyoda Line**: 6 minutes walk