"The Graph Model for Conflict Resolution: Past, Present, and Future"

Date & Time: 14:00~15:00 on Tuesday, December 2nd, 2014 (Reception desk will open at 13:50)

Venue: Collaboration Room, 2nd Floor, West Building 9 Ookayama Campus, Tokyo Institute of Technology

(Three minutes' walk from Ookayama Station on Meguro/Oimachi Line)

Professor of Mathematics

Participation Fee: Free of charge

Speaker: Dr. D. Marc Kilgour



Ookayama

D. Marc Kilgour is Professor of Mathematics at Wilfrid Laurier University, Research Director: Conflict Analysis for the Laurier Centre for Military Strategic and Disarmament Studies, and Adjunct Professor of Systems Design Engineering at University of Waterloo.

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Abstract :

Conflict Analysis is a set of principles and techniques to model and analyze strategic conflicts, or multiperson, multi-objective decision problems. The game-theory-related techniques are all based on the principle that actors are purposive. Among them, the Graph Model for Conflict Resolution stands out for the simplicity and flexibility of its models and the breadth of its analysis. This presentation shows the remarkable development of the Graph Model since its first publication in 1987.

The graph model system is prescriptive, aiming to provide a specific decision-maker with useful strategic insights. The basics of the Graph Model are described in detail, using real-life conflicts as illustrations. Then more recent developments are discussed, including

• added flexibility in modeling, including multi-level preference and uncertain, fuzzy, and grey preference,

• new analysis techniques using matrix methods,

• the development of post-analysis procedures, including coalition analysis and status quo analysis

• Inverse GMCR, a procedure to advise disputants and mediators.

The newest Decision Support System, GMCR+, with its strong visualization components, will be used to illustrate these ideas. A brief concluding look to the future will show that the next generation of decision support based on the Graph Model will be even more comprehensive and even more powerful.

[How to Attend and Inquiries]

If you would like to attend the seminar, please send an email with your name, affiliation, position, and email address to: ipcob.events@valdes.titech.ac.jp

For any inquiries regarding this seminar, please contact Prof. Inohara and Ms. Segawa (ipcob.events@valdes.titech.ac.jp), IPCOB.