



INTERNATIONAL INSTITUTE FOR CARBON-NEUTRAL ENERGY RESEARCH

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**APPLIED MATHEMATICS CHALLENGES IN ENERGY SYSTEMS**  
**I<sup>2</sup>CNER & IMI INTERNATIONAL WORKSHOP**  
**APPLIED MATH FOR ENERGY**

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**DATE: FRIDAY, FEBRUARY 1, 2019**

**TIME: 1:00PM – 5:30PM**

**VENUE: SEMINAR ROOM 3105-6, CENTER ZONE BLDG. 3**

Time	Speaker	Affiliation	Title
1:00 – 1:05	Nguyen Dinh Hoa	I <sup>2</sup> CNER & IMI	Opening Address
1:05 – 1:25	Hiroaki Watanabe	I <sup>2</sup> CNER	Combustion Simulation: Toward Zero, and Negative Emission Technology
1:25 – 1:45	Yasuhide Fukumoto	IMI	Multi-scale analysis of a premixed flame and its modeling by an interface of velocity discontinuity
1:45 – 2:15	Discussions (Chair: Prof. Watanabe)		
2:20 – 3:00 (presentation, Q & A)	Shinji Hara	Chuo University and Tokyo Institute of Technology	Hierarchically Decentralized Control with Global and Local Objectives
3:00 – 3:40 (presentation, Q & A)	Yuliy Baryshnikov	University of Illinois at Urbana- Champaign	Cyclic phenomena and iterated integrals
3:40 – 4:20 (presentation, Q & A)	Toru Yano	Toshiba	Applied mathematical methods for energy management in supply and consumer sides
4:20 – 4:40	Junichi Murata	EE Department	Modelling human decision making using inverse optimization
4:40 – 5:00	Kei Hirose	IMI	Statistical modeling for electricity consumption data analysis
5:00 – 5:30	Discussions (Chair: Prof. Murata)		