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First International Symposium on the

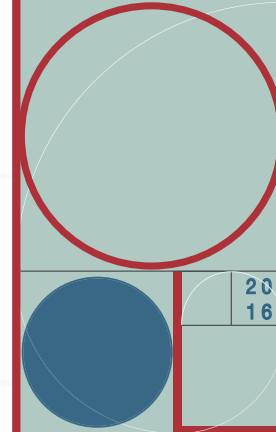# Physics of Language

March 4–5, 2016

Sophia University
Tokyo, Japan

First International Symposium on the
Physics of Language

Program

Friday, March 4 (Room 508, Building 2, Sophia University)

9:45 to 10:00   **Opening Remarks**

10:00 to 11:00   **Linguistics and Some Aspects of its Underlying Dynamics - Part 1**
Massimo Piattelli-Palmarini (University of Arizona), Giuseppe Vitiello (University of Salerno)

11:15 to 12:15   **Linguistics and Some Aspects of its Underlying Dynamics - Part 2**
Massimo Piattelli-Palmarini (University of Arizona), Giuseppe Vitiello (University of Salerno)

13:30 to 14:30   **Brain Circuits for Language Processing**
Kuniyoshi L. Sakai (University of Tokyo)

14:45 to 15:45   **Merge-Generability as a Crucial Concept in Syntax: An Experimental Study**
Shinri Ohta (University of Tokyo), Naoki Fukui (Sophia University), Mihoko Zushi (Kanagawa University),
Hiroki Narita (Nihon University), Kuniyoshi L. Sakai (University of Tokyo)

16:00 to 17:00   **Irreducible Subnets and Random Delays: Limiting the Vocabulary of Neural Information**
James Douglas Saddy (University of Reading), Peter Grindrod (Oxford University)

17:15 to 18:15   **Emergent Oscillations and Cyclicity: Physical Aspects of Frustrated Cognitive Systems**
James Douglas Saddy (University of Reading), Diego Gabriel Krivochen (University of Reading)

18:30 to 20:30   **Reception** (Faculty and Staff Dining Room, Sophia University)

Saturday, March 5 (Room 508, Building 2, Sophia University)

10:00 to 11:00   **Merge α and Superpositioned Labels**
Koji Fujita (Kyoto University)

11:15 to 12:15   **Queue Left, Stack-Sort Right: Syntactic Structure without Merge**
David P Medeiros (University of Arizona)

13:30 to 14:30   **Language Combinatorics as Matrix Mechanics: Conceptual and Empirical Bases**
Juan Uriagereka (University of Maryland) [live video], Roger Martin (Yokohama National University),
Ángel Gallego (Universitat Autònoma de Barcelona)

14:45 to 15:45   **Language Combinatorics as Matrix Mechanics: Mathematical Derivation and Properties**
Román Orús (Johannes Gutenberg-Universität) [live video], Michael Jarret (University of Maryland)

16:15 to 17:15   **From Geometry and Physics to Computational Linguistics**
Matilde Marcolli (California Institute of Technology)

17:30 to 18:30   **Geometric Language to Replace Mathematics and Computer Programming**
Anirban Bandyopadhyay (National Institute for Materials Science)

http://www.ling.ynu.ac.jp/pol2016/

contact : pol2016.tokyo@gmail.com