# STATISTICS OF LANGUAGES THEORIES AND EXPERIMENTS

Warsaw, Poland, 19th–22nd July 2017

Sponsored by

## SAMSUNG

#### Wednesday, 19th July 2017

8:30-9:30:	Registration
9:30-10:00:	Opening

(led by Łukasz Dębowski)

10:00-11:00: Estate Khmaladze

On Infinite Divisibility and the Large Number of Rare Events, in Texts and Else-

where

(chaired by Łukasz Dębowski)

11:00-11:30: Coffee

11:30-12:30: Isabel Serra, Christian Bentz, Alvaro Corral, Ramon Ferrer-i-Cancho

The Zipf Law of Abbreviation from a Statistical Point of View

(chaired by Łukasz Dębowski)

12:30-13:30: Lunch

13:30-14:30: Giampaolo Cristadoro, Mirko Degli Esposti, Eduardo G. Altmann

On the relationship between symmetry and structure in DNA sequences

(chaired by Ramon Ferrer-i-Cancho)

14:30-15:30: Alvaro Corral, Irina Espejo

From Boltzman to Zipf through Jaynes (chaired by Ramon Ferrer-i-Cancho)

15:30-16:00: Coffee

16:00-17:00: Christian Bentz, Dimitrios Alikaniotis, Michael Cysouw, Ramon Ferrer-i-Cancho

Word Entropy across More than 1000 Languages: The Linear Relationship be-

tween Unigram Entropy and Entropy Rate

(chaired by Ramon Ferrer-i-Cancho)

17:00-19:00: Welcome reception

(at the workshop venue)

#### Thursday, 20th July 2017

9:00-10:00: Eduardo G. Altmann, Martin Gerlach

A Statistical Interpretation of Linguistic Laws

(chaired by Kumiko Tanaka-Ishii)

10:00-11:00: Martin Gerlach, Eduardo G. Altmann

From Universality to Variability in the Statistics of Word Frequencies using Gen-

eralized Entropies

(chaired by Kumiko Tanaka-Ishii)

11:00-11:30: Coffee

11:30-12:30: Poster session

Dániel Czégel, Maxi San Miguel, A minimal model of text generation: random

walk on structured scale free network

Ezequiel Koile, Maya Inbar, Damian Blasi, Eitan Grossman, What determines bor-

rowability? A quantitative cross-linguistic study

Julian Sienkiewicz, Eduardo G. Altmann, Impact of lexical and sentiment factors

on the popularity of scientific papers

Lunch 12:30-13:30:

13:30-14:30: Fermín Moscoso del Prado

Mommy Only Really Cares about My Grammar! Child-Mother Dyads Integrate a

**Dynamical System** 

(chaired by Łukasz Dębowski)

Damian E. Blasi 14:30-15:30:

**Language Adaptation and Change** 

(chaired by Łukasz Dębowski)

Coffee 15:30-16:00:

16:00-17:00: Urszula Oleszek

Do We Need Deep Learning for Recognizing Phrases in the Natural Language?

(chaired by Łukasz Dębowski)

Conference dinner 19:00-22:00:

(at Restaurant Stolica, ul. Szeroki Dunaj 1/3, Old Town)

#### Friday, 21st July 2017

9:00-10:00: Francesc Font-Clos

Zipf's Law, Heaps' Law, and the Project Gutenberg Corpus

(chaired by Kumiko Tanaka-Ishii)

10:00-11:00: Stuart Semple

**Linguistic Laws in Non-Human Primate Communication** 

(chaired by Kumiko Tanaka-Ishii)

Coffee 11:00-11:30:

11:30-12:30: Ramon Ferrer-i-Cancho

Compression as a General Principle of Language

(chaired by Kumiko Tanaka-Ishii)

12:30-13:30: Lunch

13:30-14:30: Kumiko Tanaka-Ishii

**Generative Models Producing Power Laws of Language** 

(chaired by Ramon Ferrer-i-Cancho)

14:30-15:30: Łukasz Dębowski

**Natural Language and Strong Nonergodicity** 

(chaired by Ramon Ferrer-i-Cancho)

Coffee 15:30-16:00:

16:00-17:00: Discussion & closing

(led by Ramon Ferrer-i-Cancho)

### Saturday, 22nd July 2017

10:00-13:00: Guided walking tour of Warsaw

(start at Sigismund's Column, Castle Square, Old Town)