# Advances in Biolinguistics 25-27 July 2013, Geneva, ICL 19

# A workshop organized by the **International Network in Biolinguistics** Author: Anna Maria DI SCIULLO

This workshop focuses on advances on the understanding of the biological basis of language (Lenneberg 1967, Jenkins 2000, 2004, Chomsky 2002, 2005, 2011, Piattelli-Palmarini et al. 2009, Larson et al. 2010, Di Sciullo et al. 2010, Di Sciullo and Boeckx 2011) The workshop invites contributions where specific biolinguistic hypotheses are substantiated by theoretical linguistics evidence, empirical data and biological/natural world evidence. The workshop includes the following thematic sessions:

Session 1, Language and biology, addresses the question of how studies in language and genetics, language and the brain contribute to our understanding of the nature of syntax, morphology, the lexicon, and their interfaces with the other cognitive systems.

Session 2, Language typology and language universals, considers how biolinguistic studies on language evolution and variation shed new light on language typology, and the study of language universals. The questions raised in this session are the following: how is variation and change in the natural world related to language variation and change, and how the biolinguistic perspective may lead to new approaches to language typology and universals.

Session 3, The effects of natural laws, discusses recent proposals on the effect of natural laws, such as prominence, symmetry breaking, reaction-diffusion, preservation of the shape etc. on language derivations and representations, on language variation and evolution, and on language acquisition. How do these laws interact with natural language?

A special session on *language and mathematics* targets the configurational and sematic properties of complex numerals and the acquisition of numbers. The central questions asked in this special session bare on the emergence of language and the development of complex numerals in the individual as well as the nature of the relations between language and mathematics.

# **Workshop Program**

25.07.2013 16:30-18:30 Title: Language and biology **Chair: Anna Maria Di Sciullo** 

#### **16:30 - 17:30 Roland FRIEDRICH**

Logic and Language

# 17:30 - 18:00 Evie MALAIA et al.

Bioinformatic properties of sign language motion: fractal complexity of optical flow

## 18:00 - 18:30 Antonio BENÍTEZ-BURRACO et al.

Variation, speciation and the development of sapiens' language ready brain

#### 26.07.2013 10:30 -12:30

Title: Language typology and language universals **Chair: Lyle Jenkins** 

# 10:30 - 11:30 Giuseppe LONGOBARDI

Toward historial biolinguistics

#### 11:30 - 12:00 Joao COSTA

The robustness of language development: the role of crosspopulation and crosslinguistic studies

## 12:00 - 12:30 Antonio BENÍTEZ-BURRACO et al.

Should we expect a variable Faculty of Language?

#### 26.07.2013 14:00-16:00

Title: Effects of natural laws **Chair: Giuseppe Longobardi** 

#### 14:00 - 15:00 Lyle JENKINS

Natural Laws and Biolinguistics - the case of symmetry

#### 15:00 - 16:00 Anna Maria DI SCIULLO et al.

Evo-devo language universals

#### 16:00 - 16:30 Boban ARSENIJEVIC

Context representation retrieval and update and the nature of the syntax-semantics interface

#### 27.07.2013 08:30-10:30

Title: Special session on language and mathematics **Chair: Roland Friedrich** 

## 08:30 - 09:00 Akira WATANABE

Mental representation of natural numbers and acquisition of numerals

#### 09:00 - 09:30 Koji ARIKAWA

Variable elimination in language system and mathematics

## 09:30 - 10:30 Anna Maria DI SCIULLO

The great leap forward and the emergence of complex numerals

# **Sponsored by**

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