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Direction



Manuel Carreiras

BCBL, Basque Center on Cognition, Brain and Language
(Donostia/San Sebastián)

Manuel Carreiras is the Scientific Director of the BCBL (Basque Center on Cognition, Brain and Language, Donostia-San Sebastián, Spain) that has been awarded the "Severo Ochoa" label of excellence. He is also IKERBASQUE research professor, Honorary Professor of the University College of London (UCL), and distinguished researcher of the University of the Basque Country (UPV/EHU). His research focuses on reading, bilingualism and second language learning. He is the editor in chief of *Frontiers in Language Sciences*, and associated editor of *Language, Cognition, and Neuroscience*; and *Brain and language*. He has published more than 230 papers in high impact journals in the field. His research has been funded by different research agencies. He was the coordinator of the Consolider-Ingenio2010 grant entitled COEDUCA and has been recipient of the ERC advanced grant entitled Bi-Literacy, among others, and of the Euskadi Research prize 2015.

International Conference on Interdisciplinary Advances in Statistical Learning 2019

June 27th to June 29th



Code: Z08-19

Type of activity: **Congress**

Place: **Miramar Palace, Donostia/San Sebastián**

Language: **English**

Academic validity: **50 hours**

Scientific and organising committee

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Contributors



Main collaborators

Fundación BBVA



Summary

The conference will discuss statistical learning and its underlying mechanisms from behaviour to neuroscience, in various domains such as language, music, vision, and audition, with data from adult participants, development, individual differences, computational modeling, and non-human species. The conference will include invited speakers, regular talks, panel discussions, and poster sessions.

Aims

- To promote, through talks and symposiums, the exchange of ideas within the field of statistical learning among international experts of different disciplines.
- To share the results obtained through research carried out in this area.
- To build working arrangements between experts from the Basque Country and international experts.
- To consolidate San Sebastián as the key meeting point for international researchers.
- To flesh out this groundbreaking and pioneering area.

Registration <https://www.bcbl.eu/events/statistical-learning/en/registration/>

	Early fee	Late fee	On site
Standard fee	190,00 €	220,00 €	240,00€
Students fee	150,00 €	180,00 €	200,00€

Programme

June 27th

08:00	Registration and coffee	
08:45	Opening Remarks	
09:00	Keynote 1. An active assist for statistical learning Lori Holt	
09:50	Oral Session 1. Neurobiological Perspectives	
	OS-1.1 Novel insights into statistical learning from EEG-based neural entrainment Laura Batterink	13:10
	OS-1.2 Temporal structure learning in humans Maxime Maheu, Florent Meyniel & Stanislas Dehaene	15:00
	OS-1.3 Different learning trajectories in statistical and sequence learning - from neurodevelopment to stress induction Dezso Nemeth & Karolina Janacsek	
	OS-1.4 Comparing computational mechanisms underlying visual statistical learning in honeybees and humans József Fiser, Aurore Avarguès-Weber, Valerie Finke, Márton Nagy, Tünde Szabó & Adrian Dyer	
11:10	Coffee break	
11:40	Symposium 1. Developmental Perspectives on SL	
	S-1.1 What Statistics Do Infants Learn in Statistical Learning Studies? Scott Johnson	
	S-1.2 Mechanisms of visual statistical category learning in infancy and adulthood Jelena Sucevic, Nadja Althaus & Kim Plunkett	
	S-1.3 Do Infants Remember Statistics? Ferhat Karaman, Jill Lany & Jessica Hay	
	S-1.4 Heart-rate as a physiological marker of infant's attention in a statistical learning task Rana Abu-Zhaya, Bridgette Tonnsen, Alexander Francis & Amanda Seidl	
	Lunch break (Lunch on your own at one of the many nearby bars or restaurants)	
	Oral Session 2. Implicit Learning	
	OS-2.1 Implicit, statistical, machine Learning: a common mechanism or many? Paul J. Reber	
	OS-2.2 Grammatical generalisation in statistical learning: Is it implicit and invariant across development? Amanda J Hickey, Jelena Mirkovic & Marianna E Hayiou-Thomas	
	OS-2.3 Implicit memory for regularities in rapid sound sequences: behavioural evidence Roberta Bianco, Peter Harrison, Sami Picken, Marcus Pearce & Maria Chait	
	OS-2.4 Artificial grammar learning and training effects across modalities and domains Ágnes Lukács, Dorottya Dobó & Krisztina Sára Lukics	
16:20	Poster Session and Coffee break	

June 28th

- 09:00 Keynote 2
Learning to predict rewards: episodes, averages, and integration
Daphna Shohamy
- 09:50 Oral Session 3
Chunking
- OS – 3.1
Chunk-based statistical learning of nonadjacent dependencies
Erin Isbilen, Rebecca Frost, Padraic Monaghan & Morten Christiansen
- OS – 3.2
Boundaries of associative learning mechanisms in non-human primates
Arnaud Rey, Laure Tosatto, Dezs Németh & Joël Fagot
- OS – 3.3
What exactly is learned in visual statistical learning? Insights from Bayesian modeling
Noam Siegelman, Louisa Bogaerts, Blair Armstrong & Ram Frost
- 10:50 Coffee break
- 11:20 Symposium 2
SL and Language
- S – 2.1
Sentence Comprehension as [Statistical [Constraint Satisfaction] Learning]
Maryellen C. MacDonald
- S – 2.2
Children's Learning of Low Frequency Words Is Improved in Low Entropy
Ori Lavi-Rotbain & Inbal Aron
- S – 2.3
Language learning as uncertainty reduction: effects of prediction error and entropy on generalization and item-learning
Masa Vujovic, Michael Ramscar & Elizabeth Wonnacott

- S – 2.4
Visual Statistical Learning beyond sequential presentation: The case of Reading
Yamil Vidal & Davide Crepaldi
- S – 2.5
Individual differences in non-linguistic auditory statistical learning are related to reading acquisition among 1st graders
Shani Kahta & Rachel Schiff
- 13:10 Lunch break
(Lunch on your own at one of the many nearby bars or restaurants)
- 15:00 Oral Session 4
Bridging across theories and methodologies
- OS – 4.1
The effects of variability and attention on children's statistical word learning
Kimberly Crespo & Margarita Kaushanskaya
- OS – 4.2
No evidence for visual statistical learning in standard reaction time measures
Kevin Himberger, Amy Finn & Christopher Honey
- OS – 4.3
Distributional learning and inference in young children: Insights from a spatial localization task
Vikranth Bejjanki, Emily Randrup & Richard Aslin
- 16:00 Poster Blitz II
- 16:20 Poster Session and Coffee break

June 29th

- 09:00 Keynote 3
From Item to System: how iterated learning drives the evolution of structure?
Simon Kirby
- 09:50 Symposium 3
Memory
- S – 3.1
Situating statistical learning in memory, a developmental perspective
Amy Finn
- S – 3.2
Does short-term memory develop?
Gary Jones, Lucy Justice, Francesco Cabiddu, Bethany Lee, Lai-Sang lao, Natalie Harrison & Bill Macken
- S – 3.3
What is represented in memory after statistical learning: Evidence from adults and children
Tess Allegra Forest, Amy Finn* & Margaret Schlichting*
- 11:20 Poster Session and Coffee break
- 12:00 Poster Blitz III
- 12:40 Lunch break
(Lunch on your own at one of the many nearby bars or restaurants)
- 14:00 Oral session5.
Typical and Impaired Language Processing
- OS – 5.1
Applying the Right Statistics: Linking Distributional Learning to Language Production of Relative Clauses
Elma Kerz, Daniel Wiechmann & Marcus Ströbel
- OS – 5.2
Learning of a repeating series is not enhanced by the familiarity of its composing items
Eva Kimel, Itay Lieder, Luba Daikhin, Hilla Jakoby, Atalia Hai Weiss & Merav Ahissar
- OS – 5.3
Experience shaping statistical learning: The case of bilinguals
Luca Onnis
- OS – 5.4
A statistical learning deficit in children with Developmental Language Disorder: investigating the role of modality and type of dependency
Imme Lammertink, Paul Boersma, Frank Wijnen & Judith Rispens
- OS – 5.5
EEG evidence of the extraction of regularities in the speech signal by human neonates
Ana Fló, Marie Palu & Ghislaine Dehaene-Lambertz
- 15:40 Coffee break
- 16:10 Keynote 4
Is Deep Learning Statistical Learning?
Jay McClelland
- 17:00 Round table discussion with keynote and theme speakers
Directed by Dick Aslin
- 18:30 Social Event