



UNIMORE
UNIVERSITÀ DEGLI STUDI DI
MODENA E REGGIO EMILIA

Corso di Dottorato in
Computer and Data Science

History, Science, Language(s): back to the future

Seminar Series

March 7 – May 12, 2025

Dipartimento di Comunicazione ed Economia

Palazzo Dossetti · Viale Allegri, 9 · Reggio Emilia
Sala Riunioni (second floor)

Introduction

The series consists of **seven meetings**. The speakers will present their ongoing research on topics related to the **analysis of language variation and change**, and on the contribution that **automatic data analysis** is able to provide to the study of the processes and structures which define human language and explain its diversity.

A **unifying theme** will be the interaction, in terms of methods and results, between historical and formal linguistics and the automatic tools for data analyses made available by computer sciences, with the aim to define **novel research lines** and envisage effective **interdisciplinary collaboration**.

Each meeting will explore these topics from a different angle: the investigation of ancient texts of a composite nature (Homeric texts) through the implementation of automatic analysis techniques (C. **Bozzone**); the neurobiological coding of the linguistic capacity and its structures (A. **Moro**); 'microscopic' variation and language contact (A. **De Angelis**); the reconstruction of the human past through the investigation of syntactic change and the automatic analysis of comparative materials (G. **Longobardi**); the universal coding of syntactic properties with their synchronic and diachronic variation (P. **Crisma**).

Program

Seminars will be held in Italian or in English, depending on the audience

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|--------------------|---|
| March 7 | Chiara Bozzone (Ludwig-Maximilians-Universität München) |
| 11am-1pm | <i>One of many Homers? Quantitative and computational approaches to the Homeric Question</i> |
| 2-4pm | <i>Homer's living language</i> |
| April 3 | Andrea Moro (IUSS - Pavia, Scuola Normale Superiore - Pisa) |
| 2-4pm | <i>Impossible histories. On language change and its neurobiological correlates</i> |
| April 11 | Alessandro De Angelis (Università di Messina) |
| 11am-1pm | <i>Three principles of language contact</i> |
| April 30 | Tova Rapoport (Ben-Gurion Univ. of the Negev), Monica Irimia (Unimore) |
| 3-5 pm | <i>The syntax of predicate phrases</i> |
| May 12 | Giuseppe Longobardi (University of York) |
| 11am-1pm | <i>Speculations on D</i> |
| May 12 | Paola Crisma (Università di Trieste) |
| 3.30-5.30pm | <i>The Genuine Article. Syntax and typology of articles</i> |

March 7, 2025

Chiara Bozzone (*Ludwig-Maximilians-Universität München*)

One of many Homers?

Quantitative and computational approaches to the Homeric Question

The Homeric question (i.e., the set of interconnected problems concerning how and when the Iliad and the Odyssey were first composed and how they came to assume their current form) is one of the most enduring puzzles in the study of Western literature.

This seminar applies techniques of quantitative authorship analysis (QAA) and Language Modeling to the Homeric corpus (Iliad and Odyssey), in an attempt to shed light on the composition and internal structure of these works.

Homer's living language

What if formularity, meter, and Kunstsprache in Homer weren't abstract, mechanical systems that constrained the poet's freedom, but rather adaptive technologies that helped poets to sustain feats of great creativity?

This interactive seminar explores this hypothesis by reassessing some of the key formal features of Homer's poetic technique through the lenses of contemporary linguistics (including insights from historical linguistics, sociolinguistics, computational, and corpus linguistics) and the cognitive sciences, as well as by drawing some unexpected parallels from the contemporary world.

April 3, 2025

Andrea Moro (*IUSS – Pavia, SNS - Pisa*)

Impossible histories.

On language change and its neurobiological correlates

Language changes cannot be directly perceived. We find ourselves in a situation similar to that of someone walking on a glacier: it appears still, but we know it is constantly moving. Understanding the impossible paths it can take is the logical premise for explaining the real ones.

Similarly, understanding the nature of impossible languages can offer a new perspective on language change.

A privileged case study in linguistics is provided by the syntax of copulas, which can be viewed from various perspectives, some expected and others completely unexpected, allowing us to provide historical linguistics with additional empirical and theoretical viewpoints. More specifically, I will argue that some aspects of the distribution of copulas across and within languages can be better understood through the automatic analysis of data from neurolinguistics and aphasiology.



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April 11, 2025
Alessandro De Angelis (*Università di Messina*)

April 30, 2025
Tova Rapoport (*Ben-Gurion Univ. of the Negev*),
Monica Irimia (*Unimore*)

Three principles of language contact

An extensive fieldwork campaign conducted in the Gallo-Italic-speaking communities of Sicily, which result from medieval migrations from Northwestern Italy, has led to a series of theoretical reflections on language contact. In this paper, I aim to examine three key aspects, which can be summarized as follows:

Phonetics as Last – A principle positing that, in the case of prolonged and intense linguistic contact, the phonological system of the L1 is the last to undergo change or may resist change altogether, while other linguistic levels, such as syntax and morphology, are more prone to interference from the L2.

Soft Rules / Heavy Rules – A principle positing that the transfer of phonological rules from the source language to the recipient language is partial, with these imported rules typically exhibiting a transient or unstable nature (soft rules), as opposed to fully integrated, stable rules (heavy rules).

Good Rules / Bad Rules – A principle asserting that syntactic borrowing typically results in hybrid structures, which are often distant from the source language's original constructions and heavily shaped by the adaptation processes occurring in the recipient language (bad rules). When this does not happen—i.e., when the recipient language faithfully reproduces the source language structures—it is likely indicative of a particular type of bilingual speaker, who integrates the borrowed structures in a more "native-like" manner.

The syntax of predicate phrases

In this talk, we present our theory of predicate phrases as headed by a discourse element. The syntactic representation of this element and its interactions within the clause derive the properties of a range of predicate sentence types, including adjunct predicate sentences and small clauses. One result of our proposal is a unified account of a variety of predicate phrase types.

May 12, 2025
Giuseppe Longobardi (*University of York*)

Speculations on D

The abstract will be available soon



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May 12, 2025
Paola Crisma (*Università di Trieste*)



The Genuine Article
Syntax and typology of articles

This seminar will present a proposal for the analysis of article syntax, which considers definiteness (or indefiniteness) as a secondary feature, arguing that the underlying cause of the observable interlinguistic variation lies in the quantificational properties of articles.

Various language types will be examined (languages without articles; languages with both definite and indefinite articles; languages with only definite articles; languages with only indefinite articles), some of which are consistent with the proposed analysis, while others appear to contradict it. These counterexamples will be analyzed in depth, with the conclusion that their apparent incompatibility with the proposed analysis is, in fact, merely superficial.

Seminars will be held at the **Dipartimento di Comunicazione ed Economia**, Reggio Emilia, Sala Riunioni, Palazzo Dossetti (Viale Allegrì 9).

The program (in its Italian and English versions) and individual announcements of each seminar can be downloaded at www.parametriccomparison.unimore.it >> *Events*.

Info: cristina.guardiano@unimore.it

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Students who are enrolled in a doctoral program will be assigned a maximum of 3CFU, on the basis of their attendance to classes.

Students who attend **2 seminars** (4 hours in total) and present a short essay (max 5 pages) where they critically present a scientific work related to the topics discussed in the seminars will be assigned 1CFU.

Students who attend the entire cycle (at least 12 hours) and present two short essays (max 5 pages each) where they critically discuss two scientific works (one per essay) related to the topics presented in two seminars will be assigned 3CFU.