

# Vito Pirrelli, Ph.D.



born in Bari, Italy - November 1, 1961



Italian



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Consiglio Nazionale delle Ricerche, Istituto di Linguistica Computazionale “Antonio Zampolli”  
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## Professional Summary

Research manager (dirigente di ricerca) at the National Research Council Institute for Computational Linguistics “A. Zampolli” since 2003, and head of the *Laboratory for Communication Physiology* (Comphys Lab: <http://www.comphyslab.it>), my main research interests focus on fundamental issues of language architecture and physiology, lying at the interdisciplinary crossroad of cognitive linguistics, psycholinguistics, neuroscience and information science.

Over the last 20 years, I have been leading a data-driven research program that uses artificial neural networks, language models and information and communication technologies to investigate language as a holistic dynamic system, emerging from interrelated patterns of sensory experience, communicative and social interaction and psychological and neurobiological mechanisms. This research program succeeded to go beyond the fragmentation of mainstream natural language processing technologies of the early 21st century, allowing innovation to come out of research labs and address societal needs. Using portable devices and cloud computing to collect ecological multimodal language data, the Comphys Lab currently offers a battery of tools, resources and protocols that support language teaching and education assessment, cultural integration and early diagnosis and intervention of language and cognitive disorders, including:

- the first open-access *Corpus of contemporary Italian for language teaching* (FIRB Paisà, 2011-2013), consisting of over 250 million tokens of richly annotated texts (<https://www.corpusitaliano.it>)
- the European Science Foundation Research Networking Programme *Word Structure in the Languages of Europe* (NetWordS, 2011-2015), coordinating interdisciplinary research on the mental lexicon conducted by more than 40 labs in 16 European countries (<http://www.networks-esf.eu>)
- the first ICT infrastructure for collecting and quantitatively modelling children and adults’ multimodal reading data at scale (PRIN *ReadLet*, 2020-2023)
- an interactive platform for online child reading intervention (@CNR *ReadGround*, 2022-2024)
- an AI-based infrastructure for detecting and monitoring the prodromal stages of Mild Cognitive Impairment through a battery of linguistic tasks (PRIN *ReMind*, 2024-2025; PNRR *Age-It*, 2023-2024)
- an integrated ICT protocol to investigate and support Braille reading (PRIN-PNRR *Braillet* 2024-2025).

## Professional Summary (continued)

As co-editor in chief of *Lingue e Linguaggio* (il Mulino, Italy) since 2011, I consolidated the journal's international ranking as an ANVUR class A scientific periodical. As of 2021, together with Harald R. Baayen, Melanie Bell and Juhani Järviö, I was invited to succeed Gary Libben and Gonia Jarema in the editorship of the interdisciplinary journal *The Mental Lexicon* (Benjamins, the Netherlands). My mentoring activities include the chairing of two international Summer Schools, 6 international conferences and 10 workshops, as well as university teaching and PhD supervision, in Italy and abroad.

In 2021, upon nomination by Prof. Wolfgang U. Dressler and Prof. Angela Ralli, following a peer review by the relevant Class Committee, I was elected member of the *Accademia Europaea* "... due to his outstanding achievements as a researcher" ([https://www.ae-info.org/ae/Member/Pirrelli\\_Vito](https://www.ae-info.org/ae/Member/Pirrelli_Vito)).

## Position

Jan 2003 – today	■ <b>Research manager</b> (Dirigente di Ricerca CNR, 1° livello). Consiglio Nazionale delle Ricerche, Istituto di Linguistica Computazionale, Area della Ricerca di Pisa
Jun 2001 – Dec 2002	■ <b>Senior researcher</b> (Primo Ricercatore CNR, 2° livello). Consiglio Nazionale delle Ricerche, Istituto di Linguistica Computazionale, Area della Ricerca di Pisa
Mar 1994 – May 2001	■ <b>Junior researcher</b> (Ricercatore CNR, 3° livello). Consiglio Nazionale delle Ricerche, Istituto di Linguistica Computazionale, Area della Ricerca di Pisa
Jan 1992 – Feb 1994	■ <b>Freelance research consultant.</b>
Apr 1989 – Dec 1991	■ <b>Research assistant.</b> University of Salford UK






## Education

1990 – 1993	■ <b>Ph.D. in Computational Linguistics, University of Salford (UK)</b> Dissertation title: <i>Morphology, Analogy and Machine Translation</i> supervisor: Prof. Jacques Durand
1981 – 1985	■ <b>Laurea degree in Computational Linguistics, Università degli Studi di Pisa</b> Dissertation title: <i>Multidimensional Scaling for linguistic text analysis</i> supervisor: Prof. Antonio Zampolli

## Professional Certification

2020	■ <i>Habilitation</i> as Institute Director for the National Research Council ( <i>Bando 364.325 ILC, 2019</i> ) - Consiglio Nazionale delle Ricerche, Rome Italy
2013	■ <i>Habilitation</i> as Institute Director for the National Research Council ( <i>Bando 364.137 ILC, 2013</i> ) - Consiglio Nazionale delle Ricerche, Rome Italy

## Research Management

- 2013  *Pro-tem* Director of the *Institute for Computational Linguistics* “Antonio Zampolli”, Italian National Research Council
- 2012-  Founder and head of the *Laboratory for Communication Physiology* (Comphys Lab: <http://www.comphyslab.it>), Institute for Computational Linguistics and Institute for Clinical Physiology, CNR Pisa
- 2011-2015  Chair of the *Interdisciplinary Research Network* on “Word Structure”, European Science Foundation, Strasbourg France
- 2009-2012  Founder and head of the *Laboratory for Language Dynamics* (DyLan Lab), CNR Institute for Computational Linguistics and University of Pisa, Pisa Italy
- 2009-  Principal investigator of national and international research projects

## Research Grants







### Awarded as principal investigator

- 2024-2025  **ReMind**, *An ecological, cost-effective AI platform for early detection of prodromal stages of cognitive impairment*  
**PRIN** - Italian Ministry of University and Research  
project no: 2022YKJ8FP  
cost: € 280.834  
funding: € 204.738
- 2022-2023  **ReadGround**, *Piattaforma cloud per il monitoraggio e il potenziamento a distanza delle capacità di lettura del bambino con videogiochi*  
**@CNR** - Consiglio Nazionale delle Ricerche  
project no: SAC.AD002.173.035  
cost: € 73.130  
funding: € 73.130
- 2020-2023  **ReadLet**, *Reading to Understand. an ICT-driven, large-scale investigation of early grade children's reading strategies*  
**PRIN** - Italian Ministry of University and Research  
project no: 2017W8HFRX  
cost: € 464.530  
funding: € 364.530
- 2011-2015  **NetWordS**, *The European Network on Word Structure: Cross-disciplinary approaches to understanding word structure in the languages of Europe*  
**European Science Foundation** - Research NetWorking Programmes  
funding: € 601.000
- 2011-2013  **Paisà**, *Piattaforma per l'Apprendimento dell'Italiano Su corpora Annotati*  
**FIRB** - Italian Ministry of Education, University and Research  
project no: RBNE072H7L\_001  
cost: € 405.000  
funding: € 328.500

## Research Grants (continued)


- 2009      **ESF Exploratory Workshop, Words In Action: Interdisciplinary Approaches To Understanding Word Processing And Storage - Pisa, Italy October 11 - 14, 2009**  
**European Science Foundation**  
project no: EW08-290  
funding: € 14.000
- 2008      **The morphological paradigm in Romance languages, linguistic and psycho-computational aspects**  
**Università Italo-Francese - Programma Galileo**  
funding: € 8.448
- 2007-2009      **ACSIP, Acquisition of Common Sense facts for Inference and Planning**  
**Consiglio Nazionale delle Ricerche**  
project no: DG.RSTL.048.004  
funding: € 36.000

## Awarded as head of laboratory

- 2023-2025      **Braillet, A data-driven investigation into the cognitive demands of Braille reading**  
**PI: Marcello Ferro**  
**PRIN-PNRR - Italian Ministry of University and Research**  
cost: € 242.992  
funding: € 154.380
-  **TabLit, Assessing reading literacy and comprehension of early graders in Bulgaria and Italy**  
**CNR-Bulgarian Academy of Sciences, Italy-Bulgaria Bilateral Project**  
funding: € 6.000
- 2016-2017      **The Universal Ocean, a semi-automated system for the morphological, syntactic and semantic classification of Arabic triliteral verbs**  
**CNR-CNRST, Italy-Morocco Bilateral Project**  
funding: € 8.000
- 2010-2011      **ParadigMo, Structure, Acquisition and representation of morphological paradigms**  
**CNR-CNRS, Italy-France Bilateral Project**  
funding: € 8.000
- 2010-2012      **Metodologie per lo studio dei processi cognitivi e neuro-psicofisiologici dell'interazione linguistica multimodale**  
**Scientific Cooperation Agreement ILC-IFC**  
funding: € 60.086
- 2010-2011      **Anticipatory Mechanisms for multimodal language interaction**  
**Scientific Cooperation Agreement ILC-IFC**  
cost: € 71.192  
funding: € 38.600
-  **Vodafone project**  
funding: € 55.000





## Research Grants (continued)

### Awarded as national coordinator



- 2001-2003     **Nite, Natural Interactivity Tools Engineering**  
**European Commission, 5th Framework Programme**  
project no: IST-26095  
funding: € 1.275.003
- 1998-1999     **Mate, Multilevel Annotation Tools Engineering**  
**European Commission, 4th Framework Programme**  
project no.: TELEMATICS-LE4-8370  
funding: € 950.421
- 1995-1997     **Sparkle Shallow Parsing and Knowledge Extraction for Language Engineering**  
**European Commission, 4th Framework Programme**  
project no.: TELEMATICS-LE1-2111  
funding: € 650.000
- 1993-1995     **Onomastica Multi-Language Pronunciation Dictionary of Proper Names and Place Names**  
**European Commission, 3rd Framework Programme, Specific programme of research and technological development (EEC) in the field of telematic systems in areas of general interest - Linguistic research and engineering**  
funding: € 2.722.754

## Scientific Roles

### Member of Academic Society

- 2021-     *Academia Europaea* (Linguistic Studies)  
           *Associazione Italiana di Linguistica Applicata*
- 2014-     *Associazione Italiana di Linguistica Computazionale*
- 2005-     *Società Italiana di Glottologia*

### Visiting scholar

- 2008     Visiting Research Fellow, Department of Cognitive Sciences, Johns Hopkins University, Baltimore (US)
- 1998     Visiting Research Fellow, École Nationale Supérieure des Télécommunications, Paris, (France)

### Conference Chairing

- December 16-22, 2023     **Machine Learning & Natural Language Processing** (IEEE-CIST'23), Agadir Morocco
- June 5-12, 2021     **Machine Learning & Natural Language Processing** (IEEE-CIST'20), Agadir Morocco
- October 21-24, 2018     **Machine Learning & Natural Language Processing** (IEEE-CIST'18), Marrakech Morocco

## Scientific Roles (continued)

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|--------------------------|---|
| October 24-26, 2016      | ■ <b>Machine Learning &amp; Natural Language Processing</b> (IEEE-CIST'16), Tangier Morocco |
| October 20-22, 2014      | ■ <b>Machine Learning &amp; Natural Language Processing</b> (IEEE-CIST'14), Tetouan Morocco |
| March 30 - April 1, 2015 | ■ <b>NetWordS 2015</b> - Scuola Normale Superiore, Pisa Italy                               |

## Area Conference Chairing

- |                      |  |
|----------------------|--|
| December 8-13, 2020  | ■ <b>Morphology and Word Segmentation</b> - <i>Coling 2020</i> - Barcelona, Spain  |
| December 11-13, 2017 | ■ <b>Cognitive Modeling of Language Processing and Psycholinguistics</b> - <i>4th Italian Conference on Computational Linguistics (CLiC-it 2017)</i> - Rome, Italy   |
| December 5-6, 2016   | ■ <b>Cognitive Modeling of Language Processing and Psycholinguistics</b> - <i>3rd Italian Conference on Computational Linguistics (CLiC-it 2016)</i> - Napoli, Italy |
| December 9-11, 2014  | ■ <b>Cognitive Modeling of Language Processing and Psycholinguistics</b> - <i>1st Italian Conference on Computational Linguistics (CLiC-it 2014)</i> - Pisa, Italy   |

## Summer School Chairing

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|------------------|--|
| August 4-9, 2014 | ■ <b>European Science Foundation NetWordS Summer School</b> - Trondheim, Norway  |
| July 2-6, 2011   | ■ <b>European Science Foundation NetWordS Summer School</b> - Dubrovnik, Croatia |



## Workshop Chairing

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|-----------------------|---|
| February 7, 2020      | ■ <b>Implications of psychocomputational modelling for morphological theory</b> (with Claudia Marzi and Marcello Ferro) - <i>19th International Morphology Meeting 2020</i> - Vienna, Austria                   |
| October 21-22, 2014   | ■ Special Session on <b>Arabic Natural Language Processing: Models, Systems and Applications</b> (with Arsalane Zarghili) - <i>IEEE CIST'14</i> - Tetouan, Morocco  |
| September 19-20, 2013 | ■ 3rd NetWordS Workshop on <b>Variation and Adaptation in Lexical Processing and Acquisition</b> (with Claudia Marzi and Ida Raffaelli) - <i>NetWordS</i> - Dubrovnik, Croatia                                  |
| December 3-4, 2012    | ■ 2nd NetWordS Workshop on <b>Perspectives on Synergy</b> (with Hélène Giraudo, Claudia Marzi, Basilio Calderone, Fabio Montermini) - <i>NetWordS</i> - Toulouse, France  |
| November 23-24, 2011  | ■ 1st NetWordS Workshop on <b>Understanding the Architecture of the Mental Lexicon: Integration of Existing Approaches</b> (with Claudia Marzi, Marcello Ferro, Claudia Caudai) - <i>NetWordS</i> - Pisa, Italy |



## Scientific Roles (continued)

- October 11-14, 2009     European Science Foundation Exploratory Workshop on **Words in action: Interdisciplinary Approaches to Understanding Word Processing and Storage** - CNR Research Area, Pisa Italy
- December 15, 2003     Workshop on **Computational models of cognitive functions** - XI Congress of the Italian Society of Psychophysiology, Pisa Italy
- June 5-6, 2003         International Workshop on **Natural Interactivity Annotation Practices and Tools** (with Claudia Soria) - CNR Research Area, Pisa Italy
- May 27, 2002          International Workshop on **Linguistic Knowledge Acquisition and Representation : Bootstrapping Annotated Data** (with Simonetta Montemagni, Alessandro Lenci) - *LREC 2002* Las Palmas, Spain
- August 13-17, 2001    International Workshop on **Semantic Knowledge Acquisition and Categorisation** (with Simonetta Montemagni, Alessandro Lenci) - *European Summer School in Logic, Language and Information (ESSLI XIII)* Helsinki, Finland






## Scientific Board - PhD programs

- 2022-                   *Artificial Intelligence* - Area Health & Life Sciences - Bio-medical Campus University, Rome
- 2004-2013           *Theoretical and Applied Linguistics* - Universities of Pavia and Bergamo

## Scientific Board - Research/Academic Institutions


- 2008-                   *Centre for Advanced education and research "Lingue d'Europa: Tipologia, Storia e Sociolinguistica"* (LETISS), Istituto Universitario di Studi Superiori (IUSS), Pavia
- 2009-2021           CNR *Institute for Computational Linguistics*, Pisa

## Scientific Board - Journals and book series

- 2023-                   *Frontiers in Communication* (Frontiers, Switzerland)
- 2017-                   *Journal of King Saud University - Computer and Information Sciences* (Elsevier, The Netherlands)
- 2015-                   *Italian Journal of Computational Linguistics* (Academia, Italy)
- 2015-2021           *Italian Journal of Linguistics* (Pacini, Italy)
- 2009-                   *Computing Reviews*
- 2009-2011           *Lingue e Linguaggio* (il Mulino, Italy)
- 2000-2003           *Linguistica Computazionale* (Istituti Editoriali e Poligrafici Internazionali, Italy)
- 2003-                   *Materiali Linguistici* (Franco Angeli, Italy)
-  *Linguistica e Glottodidattica Sperimentale* (Pavia University Press, Italy)

## Scientific Roles (continued)





### Scientific Board - Conferences and Workshops

- 2000-  Serving as a member of the Scientific Board for over **25** national/international conferences and **45** national/international workshops

### Research/Academic Assessment

- 2023  *Research Starting Grant Review* - European Research Council
- 2021  *Research Grant Review* - Bando FARE, Ministero dell'Università e della Ricerca
- 2020-2021  *Procedura Selettiva per Dirigente di ricerca I livello: Bando 315,53 DR* - Consiglio Nazionale delle Ricerche, Roma
- 2020  *Habilitation à diriger des Recherches* - Université Paul Valéry Montpellier 3, France
-  *Research Excellence Prize* - Fonds Wetenschappelijk Onderzoek - Vlaanderen, Belgium
- 2020-  *Research Grant Review* - bandi PRIN, Ministero dell'Università e della Ricerca
- 2020  *Research Grant Review* - French National Research Agency, France
- 2019  *Professorship Application Assessment* - Department of English, George Mason University Virginia (USA)
- 2017  *Research Grant Review* - University of Udine
- 2016  *Research Grant Review* - Autonomous Province of Bozen
- 2015  *Habilitation à diriger des Recherches* - CNRS & Université de Toulouse, France
- 2014  *Research Grant Review* - University of Pavia
- 2013  *Distinguished Professor Grant*, Swedish Research Council, Sweden
-  *Professorship Application Assessment*, University of Trondheim, Norway
- 2013-  *Italian National Agency for University and Research Assessment (ANVUR)*
- 2009  *Habilitation à diriger des Recherches* - CNRS & Université de Toulouse, France
- 2004-2014  *Research Grant Review* - European Science Foundation

### Teaching

- 2018-  *Computational Psycholinguistics* - MA, Digital Humanities (Corso di Laurea Magistrale in Informatica Umanistica) University of Pisa
- 2006-2007  *Lexical Semantics* - MA, Department of Modern Languages and Literary Studies, University of Bologna
- 2002-2009  Computational Linguistics - BA, Department of Theoretical and Applied Linguistics, University of Pavia, Italy
- 1989-1991  General Linguistics - BA, Department of Modern Languages, University of Salford UK



## Scientific Roles (continued)

### Research Supervision

2021-2024	■ Alessandro Lento - PhD, Bio-medical Campus University, Rome Italy
2014-2018	■ Ouafae Nahli - PhD, Università La Sapienza, Rome Italy
2016-2017	■ Stavros Bompolas - MA in Linguistics, University of Patras, Patras Greece
2011-2015	■ Eleonora Sausa - PhD, University of Pavia, Pavia Italy
2011-2014	■ Claudia Marzi - PhD, University of Pavia, Pavia Italy
2007-2010	■ Francesca Frontini - PhD, University of Pavia, Pavia Italy
2006-2009	■ Maddalena Menchi - PhD, University of Pavia, Pavia Italy
2005-2008	■ Fabiana Rosi - PhD, University of Pavia, Pavia Italy
	■ Basilio Calderone - PhD, Scuola Normale Superiore, Pisa Italy
2005-2007	■ Ivan Herreros DEA, Universitat Pompeu Fabra, Barcelona Spain

### Reviewing

1998-	■ Reviewer for over 25 International Journals, including <i>Cognitive Psychology</i> , <i>Bilingualism: Language and Cognition</i> , <i>Computer Speech and Language</i> , <i>Journal of Cultural Cognitive Science</i> , <i>Journal of Language, Logic and Information</i> , <i>Language Resources and Evaluation</i> , <i>The Mental Lexicon</i> , <i>Neural Networks</i> , <i>Frontiers in Human Neuroscience</i> , <i>Italian Journal of Linguistics</i> , <i>ACM Journal on Computing and Cultural Heritage</i> , <i>Morphology</i> , <i>Lingue e Linguaggio</i> , <i>Computing Reviews</i> , <i>Journal of King Saud University - Computer and Information Sciences</i> , <i>Italian Journal of Computational Linguistics</i> .
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## Editorial Roles

### Editor

2021-	■ Co-editor in chief of <i>The Mental Lexicon</i> (John Benjamins, The Netherlands)
2011-	■ Co-editor in chief of <i>Lingue e Linguaggio</i> (il Mulino, Italy)

### Guest editor

2023	■ <i>Morphology</i>
2022	■ <i>Frontiers in Psychology</i>
	■ <i>International Journal of Information Science and Technology</i>
	■ <i>Frontiers in Artificial Intelligence</i>
2019	■ <i>International Journal of Information Science and Technology</i>
2017	■ <i>Journal of King Saud University - Computer and Information Sciences</i>
2016	■ <i>Italian Journal of Linguistics</i>
	■ <i>Lingue e Linguaggio</i>

## Editorial Roles (continued)

2014	■ <i>Suvremena Lingvistika</i>
2012	■ <i>Lingue e Linguaggio</i>
2010	■ <i>Lingue e Linguaggio</i>
2007	■ <i>Lingue e Linguaggio</i>

## Keynotes

November 10, 2023	■ <i>Is the finger-voice span an indicator of reading proficiency?</i> - 14th AWLL International workshop on writing systems and literacy, Temple University, Rome Italy
May 13, 2023	■ <i>Reading with the index finger: what a tablet can tell us about early graders' reading skills</i> - 1st International Conference on E-learning and smart engineering systems, Higher Normal School, Tetouan Morocco
December 12, 2020	■ <i>Emerging words in a vanishing lexicon: prospects of interdisciplinary convergence</i> - 6th Workshop on Cognitive Aspects of the Lexicon 2020 (CogALex VI), Barcelona Spain
September 26, 2019	■ <i>Cross-disciplinary Issues in Inflectional Morphology</i> - 2nd International Symposium of Morphology (ISMo 2019), Université Paris-Diderot, Paris France
October 24, 2018	■ <i>From Labs to Life: Language Technology and Early Grade Readers</i> - IEEE-CIST'18, Marrakech Morocco
May 5, 2016	■ <i>Co-activation and competition effects in lexical storage and processing</i> - 4th Patras Conference of Graduate Students in Linguistics, Patras Greece
October 25, 2016	■ <i>Machine learning and neuro-linguistic issues in language processing</i> - IEEE-CIST'16, Tangier Morocco
July 11, 2015	■ <i>For a biologically-motivated model of the morphological lexicon</i> - 1st Quantitative Morphology Meeting, Belgrade Serbia
October 21, 2014	■ <i>Psycho-computational modelling of lexical access and organisation: what can we learn from Arabic?</i> - International Conference IEEE-CIST'14, Tetouan Morocco
September 20, 2012	■ <i>At the core of lexical processing: computational and neurocognitive issues</i> - FASSBL 8, Dubrovnik Croatia
September 28, 2007	■ <i>MMM: Morphology, Memory and the Mental Lexicon</i> - 6th Mediterranean Morphology Meeting, Ithaca Greece
December 4, 2005	■ <i>On the cognitive autonomy of morphological processing</i> - 4èmes Décembrettes, Toulouse France

## Invited talks & seminars

December 6, 2023	■ <i>Assessing reading literacy with the finger-voice span</i> - Bulgarian Academy of Sciences, Sofia Bulgaria
January 23, 2023	■ <i>Using a tablet touchscreen as a tool for reading data analysis. Finger tracking as an indicator of reading development</i> - Seminario Internacional Lengua, Cultura y Cognición (video)

## Invited talks & seminars (continued)

- |                   |   |  |
|-------------------|---|--|
| May 27, 2019      | ■ | <i>Computer modelling of reading efficiency</i> - International Workshop on "Functional Literacy for All", Sofia Bulgaria  |
| May 28, 2018      | ■ | <i>NLP-based assessment of reading efficiency in early grade children</i> - CLIB'18: <i>Computational Linguistics in Bulgaria</i> , Sofia Bulgaria   |
| November 17, 2017 | ■ | <i>Implications of Discriminative Learning for Arabic Morphology</i> - International Workshop on Arabic Linguistics and Digital Humanities, Università Roma 3, Rome Italy  |
| June 23, 2017     | ■ | <i>Storage vs. Processing in Models of Word Inflection. A Neuro-computational Hebbian Perspective</i> - MoProc 2017, SISSA Trieste Italy   |
| July 7, 2016      | ■ | <i>From memory processes to lexical self-organisation: a biologically-motivated integrative view of the morphological lexicon</i> - Trieste Encounters on Cognitive Science and Language Learning SISSA, Trieste Italy |
| December 14, 2015 | ■ | <i>Frequenza, struttura e processi morfologici nel lessico mentale: una prospettiva neo-concessionista</i> - "Presente e futuro di un corpus dell'italiano" Accademia della Crusca, Villa di Castello, Florence Italy  |
| July 2, 2015      | ■ | <i>Interdisciplinarity in language sciences: an integrative perspective</i> - Summer School of Scientific Communication, Split Croatia   |
| August 4-9, 2014  | ■ | <i>Neurolinguistic issues in lexical access and organisation</i> - 2nd NetWordS Summer School, Norwegian Graduate Researcher School in Linguistics and Philology, Trondheim Norway                                     |
| May 29, 2014      | ■ | <i>Lexical processing and morphological representations: the role of memory in the mental lexicon</i> - Department of Philosophy, University Roma 3, Rome Italy  |
| May 8, 2014       | ■ | <i>Modèles psycho-computationnels du lexique mentale</i> - Workshop on "Traitement Automatique de la Langue Arabe", Fez Morocco  |
| May 6, 2014       | ■ | <i>Language and Memory: processes and representations in the mental lexicon</i> - Scuola Normale Superiore, Pisa   |
| April 9, 2014     | ■ | <i>Lexical Processing and Word Structure</i> - Department of Linguistics Zagreb University, Zagreb Croatia   |
| April 8, 2014     | ■ | <i>Language and Memory: an integrative view on the morphological lexicon</i> - Zagreb Linguistic Circle, Zagreb Croatia  |
| December 18, 2013 | ■ | <i>"Curare" il linguaggio. Per una fisiologia della comunicazione verbale</i> - "ICT e eHealth" CNR Pisa, Pisa Italy   |
| May 21, 2013      | ■ | <i>(Bio)computational implications of construction morphology</i> - Seminar on Construction Morphology, Department of Modern Languages University of Bologna, Bologna Italy  |
| April 3, 2013     | ■ | <i>Artificial neural networks: methods, limits and perspectives for lexical acquisition and processing</i> - Department of Linguistics University of Pavia, Pavia Italy  |
| July 26, 2012     | ■ | <i>Learning paradigms in time and space</i> - "CNR Highlights 2010-11" Sala Marconi CNR Rome, Rome Italy   |

## Invited talks & seminars (continued)

July 2-6, 2012	■ <i>Psycho-computational Models of Lexical Storage and Access</i> - 1st NetWords Summer School, Centre for Advanced Academic Studies, Dubrovnik Croatia
April 2-3, 2012	■ <i>Approcci psico-computazionali allo studio della struttura morfologica</i> - Department of Linguistics University of Pavia, Pavia Italy
February 11, 2012	■ <i>Hebbian Self-Organizing Memories for Lexical Recoding and Processing</i> - Workshop on Exo-lexical variables in monolingual and bilingual morphological processing, International Morphology Meeting (IMM15), Vienna Austria
January 14, 2012	■ <i>Computational Complexity in Neurally-inspired Morphology processing</i> - "Morphological Complexity" British Academy, London UK
November 26, 2011	■ <i>Word Alignment and Morphology Induction</i> - 1st NetWords Workshop CNR Pisa, Pisa Italy
October 7, 2010	■ <i>Computational Issues in Paradigm Learning</i> - "Morphology meets Computational Linguistics" University of Bologna, Bologna Italy
January 20, 2010	■ <i>The Tower of Babel and the Evolution of languages</i> - Area Aperta CNR Research Area, Pisa Italy
July 27-31, 2009	■ <i>Psycho-computational issues in Morphology learning and processing</i> - European Summer School in Logic, Language and Information (ESSLLI XXI), Bordeaux, France
June 12, 2009	■ <i>Comprendere un documento con il computer</i> - Conference "Documentazione, terminologia e Scienze delle Informazione", CNR Rome Italy
December 15-16, 2008	■ <i>Italian NN compounds. Psycholinguistic aspects and distributional evidence</i> - Department of Linguistics University of Pavia, Pavia Italy
November 13-14, 2008	■ <i>Morphological theories and word learning models</i> - Université de Toulouse Le Mirail, France
November 27-28, 2008	■ <i>The Micro-dynamics of Paradigm Learning: Experimental and Computational Evidence</i> First Oxford Workshop on Romance Verb Morphology, Trinity College, Oxford UK
June 20, 2008	■ <i>Paradigm Economy and Memory Self-Organization</i> - Université de Toulouse Le Mirail, France
June 13, 2008	■ <i>Current issues in morphology learning: theoretical implications</i> - University of Patras, Patras Greece
June 12, 2008	■ <i>Paradigms in Inflection and Compounding</i> - University of Patras, Patras Greece
May 5, 2008	■ <i>The paradigmatic dimension of the Italian verb inflection</i> - University of Siena, Siena Italy
April 10, 2008	■ <i>Two routes or one? A reappraisal of the psycho-computational debate on morphology learning</i> - Department of Cognitive Sciences, Johns Hopkins University, Baltimore, USA
April 8, 2008	■ <i>AXOMs: Asynchronous Cascaded Self-organizing Maps for Language Learning</i> - Centre for Language and Speech Processing, Johns Hopkins University, Baltimore, USA

## Invited talks & seminars (continued)

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|--------------------|---|--|
| November 4, 2007   | ■ | <i>Lexical storage and online processing in inflectional morphology</i> "Formal and Semantic Constraints in Morphology University of Konstanz, Germany   |
| November 3, 2007   | ■ | <i>Morphology learning and Machine Language Learning: a case of double-dissociation?</i> - "Algomorph Workshop" University of Konstanz, Germany  |
| May 30-31, 2007    | ■ | <i>Lexical storage and online processing in inflectional morphology</i> University of Naples Federico II, Naples Italy   |
| March 3-5, 2008    | ■ | <i>Morphology in action: word processing, storage and acquisition</i> - Collegio Ghislieri, Pavia Italy  |
| April 4-5, 2007    | ■ | <i>Paradigms in morphology: What are they? How do they work? Where are they?</i> University of Padua, Phd Programme in Linguistic, Philological and Literary Studies, Padua Italy  |
| June 14, 2006      | ■ | <i>On the cognitive autonomy of morphological processing</i> - Department of Communication Sciences, University of Salerno   |
| May 19-20, 2006    | ■ | <i>Probing the space of grammatical variation: induction of cross-lingual grammatical constraints from Treebanks</i> - "Language resources and language research: typology, second language acquisition, English Linguistics" Department of Linguistics University of Pavia, Pavia Italy |
| March 23, 2006     | ■ | <i>Paradigms and OT: the phonology-morphology interaction in the Italian verb inflection</i> - Department of Foreign Modern Languages and Literatures, University of Bologna, Bologna Italy  |
| February 14, 2005  | ■ | <i>Computational Issues in Morphology Learning</i> - Department of Foreign Modern Languages and Literatures, University of Bologna, Bologna Italy  |
| June 18, 2004      | ■ | <i>Mappe di Kohonen e apprendimento morfologico</i> - Department of Interdisciplinary Studies on Translation, Language and Cultures, University of Bologna, Forlì Italy  |
| May 6-7, 2004      | ■ | <i>The paradigmatic structure of the Italian conjugation</i> - Department of Linguistics University of Pavia, Pavia Italy  |
| April 5-6, 2004    | ■ | <i>Future perspectives in Machine Translation</i> - Department of Languages, Literatures and Anglo-Germanic Cultural Traditions, University of Bari, Bari Italy  |
| September 16, 2003 | ■ | <i>Is machine language learning yet another machine learning task?</i> - Congresso AI*IA 2003, Pisa Italy  |
| May 13, 2003       | ■ | <i>Annotazione Stand-off annotation: motivations, principles and applications</i> - Linguistics Department, University of Pavia Italy  |
| November 27, 2002  | ■ | <i>Machine language learning meets information technology</i> - Convegno "Linguistics and the new professions", Pavia-Lugano   |
| June 25, 2002      | ■ | <i>Modelli computazionali per l'apprendimento e il cambiamento linguistico dell'Italiano e dei suoi dialetti</i> - Conferenza TIPI "Tecnologie informatiche nella promozione della lingua italiana", Ministero delle Comunicazioni Rome, Italy   |

## Invited talks & seminars (continued)

May 5, 2000	■ <i>Per un superamento della dicotomia lessico-grammatica. Aspetti di composizionalità 'debole' nel linguaggio</i> - Convegno "La lessicografia bilingue tra presente e avvenire", Vercelli Italia
September 19-23, 2000	■ <i>Acquisition of language models and entropy</i> - Escuela Interlatina de altos estudios en lingüística aplicada, S. Millán de la Cogolla Spain
June 6, 1998	■ <i>Issues in Computational Morphology</i> - Ecole Normale Supérieure, Paris France
May 19, 1998	■ <i>Méthodes a base d'analogie pour le Traitement Automatique des Langues</i> - LIMSI CNRS, Paris France
December 12, 1997	■ <i>Analogy-based NLP</i> International Round Table on "Algorithms for Memory-Based Language Processing", Corsendonk Turnhout Belgium
August 19-23, 1996	■ <i>Analogy-based Learning of Natural Language</i> - European Summer School on Language, Logic, and Information, Prague Czech Republic
June 21-24, 1996	■ <i>Processing by Analogy: Recursion and Other Parsing Issues in Analogy-based NLP</i> - International Conference "The Description of the World Languages", Pezenas France
March 3, 1996	■ <i>Productivity through attestedness: a fine grained view</i> - Workshop "The Data of Linguistics: from Corpora to Intuitions and Back Again", Salford UK
September 3-9, 1995	■ <i>Analogy-based learning as a model of linguistic knowledge acquisition from textual corpora</i> - Escuela Interlatina de altos estudios en lingüística aplicada S. Millán de la Cogolla, Spain
December 2-3, 1994	■ <i>Generalization by Analogy in Language</i> - Workshop on "Machine Learning and Natural Language and Speech", Amsterdam the Netherlands
March 11-12, 1994	■ <i>Morphological Paradigms in Italian</i> - Conference on Computers and Romance Languages, UMIST Manchester UK

## Other Skills

Mother tongue	■ <i>Italian</i>
Foreign Languages	■ <i>English</i> : strong reading (C2), writing (C2) and speaking (C2) skills <i>French</i> : good reading (C1), writing (B2) and speaking (B2) skills
Coding	■ C/C++, R, Matlab, $\LaTeX$ , HTML, most Microsoft Office and Google applications.








## Research Publications






### Books

- 1 A. Lenci, S. Montemagni, and **V. Pirrelli**, *Testo e computer. Elementi di linguistica computazionale*. Roma: Carocci editore, 2005.
- 2 **V. Pirrelli**, *Paradigmi in morfologia. Un approccio interdisciplinare alla flessione verbale dell'italiano*. Pisa: Istituti Editoriali e Poligrafici Internazionali, 2000.



## Journal Articles





- 1 C. Marzi and **V. Pirrelli**, "A discriminative information-theoretical analysis of the regularity gradient in inflectional morphology," *Morphology*, pp. 459–509, 2023.  DOI: 10.1007/s11525-023-09415-6.
- 2 C. Marzi and **V. Pirrelli**, "Integrative views of representations and processes in morphology: An introduction," *Morphology*, pp. 397–408, 2023.  DOI: 10.1007/s11525-023-09416-5.
- 3 C. Marzi, A. Narzisi, A. Milone, G. Masi, and **V. Pirrelli**, "Reading behaviors through patterns of finger-tracking in Italian children with autism spectrum disorder," *Brain sciences*, vol. 12, pp. 1–17, 2022.
- 4 **V. Pirrelli**, H. Rodriguez, and A. Zarghili, "Machine Learning and Natural Language Processing. An editorial," *International Journal of Information Science and Technology*, vol. 6, no. 3, pp. 1–3, 2022.  URL: <https://www.innove.org/ijist/index.php/ijist/article/view/220/174>.
- 5 F. Masini and **V. Pirrelli**, "L'evidenza morfologica nell'era digitale: Per un'integrazione di teoria e computazione," *Quaderni di semantica: rivista internazionale di semantica teorica e applicata*, no. 6, pp. 77–126, 2020.
- 6 C. Marzi, M. Ferro, and **V. Pirrelli**, "A processing-oriented investigation of inflectional complexity," *Frontiers in Communication*, vol. 4, pp. 1–48, 2019.
- 7 **V. Pirrelli**, O. Nahli, and M. Chahhou, "Machine Learning and Natural Language Processing. An introduction," *International Journal of Information Science and Technology*, vol. 3, no. 5, pp. 1–5, 2019.  URL: <https://www.innove.org/ijist/index.php/ijist/issue/view/9>.
- 8 F. A. Cardillo, M. Ferro, C. Marzi, and **V. Pirrelli**, "Deep learning of inflection and the cell-filling problem," *Italian Journal of Computational Linguistics*, vol. 4, no. 1, pp. 57–75, 2018.
- 9 M. Ferro, C. Marzi, and **V. Pirrelli**, "Discriminative word learning is sensitive to inflectional entropy," *Lingue e Linguaggio*, vol. 17, no. 2, pp. 307–327, 2018.
- 10 S. Bompolas, M. Ferro, C. Marzi, F. A. Cardillo, and **V. Pirrelli**, "For a performance-oriented notion of regularity in inflection: The case of modern greek conjugation," *Italian Journal of Computational Linguistics*, vol. 3, no. 1, pp. 77–92, 2017.
- 11 **V. Pirrelli** and A. Zarghili, "Arabic natural language processing: Models, systems and applications," *Journal of King Saud University - Computer and Information Sciences*, vol. 29, A1–A3, 2 2017.  URL: <http://www.sciencedirect.com/science/journal/13191578/29/2>.
- 12 C. Marzi, M. Ferro, F. A. Cardillo, and **V. Pirrelli**, "Effects of frequency and regularity in an integrative model of word storage and processing," *Italian Journal of Linguistics*, vol. 28, no. 1, pp. 79–114, 2016.
- 13 C. Marzi and **V. Pirrelli**, "Word knowledge and word usage, a foreword," *Italian Journal of Linguistics*, vol. 28, pp. 3–6, 1 2016.  URL: [https://www.italian-journal-linguistics.com/app/uploads/2021/05/1\\_Introduzione.pdf](https://www.italian-journal-linguistics.com/app/uploads/2021/05/1_Introduzione.pdf).
- 14 "Word knowledge and word usage: A foreword," *Lingue e Linguaggio*, vol. 15, C. Marzi and **V. Pirrelli**, Eds., pp. 3–6, 1 2016.  URL: <https://www.rivisteweb.it/issn/1720-9331/issue/6932>.






- 15 **V. Pirrelli**, "Review of *The grammar of mammalian brain capacity*, by A. Rodriguez and R. Granger," *Computing Reviews*, 2016.  URL:  
[https://www.computingreviews.com/review/review\\_review.cfm?review\\_id=144769](https://www.computingreviews.com/review/review_review.cfm?review_id=144769).
- 16 C. Marzi and **V. Pirrelli**, "A neuro-computational approach to understanding the mental lexicon," *Journal of Cognitive Science*, vol. 16, no. 4, pp. 493–535, 2015.
- 17 **V. Pirrelli**, "Review of *Language production, cognition, and the lexicon*, by N. Gala, R. Rapp and G. Bel-Enguix," *Computing Reviews*, 2015.  URL:  
[https://www.computingreviews.com/review/review\\_review.cfm?review\\_id=143442](https://www.computingreviews.com/review/review_review.cfm?review_id=143442).
- 18 F. Chersi, M. Ferro, G. Pezzulo, and **V. Pirrelli**, "Topological self-organization and prediction learning support both action and lexical chains in the brain," *Topics in Cognitive Science*, vol. 6, no. 3, pp. 476–491, 2014.
- 19 C. Marzi, M. Ferro, and **V. Pirrelli**, "Morphological structure through lexical parsability," *Lingue e Linguaggio*, vol. 13, no. 2, pp. 263–290, 2014.
- 20 **V. Pirrelli**, "Review of *Computational Paralinguistics: Emotion, Affect and Personality in Speech and Language Processing*, by Björn Schuller and Anton Batliner," *Computing Reviews*, 2014.  URL:  
[https://www.computingreviews.com/review/review\\_review.cfm?review\\_id=142608](https://www.computingreviews.com/review/review_review.cfm?review_id=142608).
- 21 C. Marzi, M. Ferro, and **V. Pirrelli**, "Word alignment and paradigm induction," *Lingue e Linguaggio*, vol. XI, no. 2, pp. 251–274, 2012.
- 22 F. Chersi, M. Ferro, G. Pezzulo, and **V. Pirrelli**, "Time, language and action-a unified long-term memory model for sensory-motor chains and word schemata.," *ERCIM News*, vol. 2011, no. 84, pp. 27–28, 2011.
- 23 M. Ferro, C. Marzi, and **V. Pirrelli**, "A self-organizing model of word storage and processing: Implications for morphology learning," *Lingue e Linguaggio*, vol. 10, no. 2, pp. 209–226, 2011.
- 24 M. Ferro, D. Ognibene, G. Pezzulo, and **V. Pirrelli**, "Reading as active sensing: A computational model of gaze planning during word recognition," *Frontiers in Neurorobotics*, vol. 4, p. 6, 2010.
- 25 M. Ferro, G. Pezzulo, and **V. Pirrelli**, "Morphology, memory and the mental lexicon," *Lingue e Linguaggio*, vol. 9, no. 2, pp. 201–240, 2010.
- 26 M. Baroni, E. Guevara, and **V. Pirrelli**, "NN compounds in Italian: Modelling category induction and analogical extension," *Lingue e linguaggio*, vol. 6, no. 2, pp. 263–290, 2007.
- 27 B. Calderone, I. Herreros, and **V. Pirrelli**, "Learning inflection: The importance of starting big," *Lingue e linguaggio*, vol. 6, no. 2, pp. 175–200, 2007.
- 28 F. Dell'Orletta, M. Federico, A. Lenci, S. Montemagni, and **V. Pirrelli**, "Maximum Entropy for Italian PoS Tagging," *Intelligenza Artificiale*, vol. 4, no. 2, 2007.
- 29 **V. Pirrelli**, "Review of *Functional imaging and language: a critical guide to methodology and analysis*, by S. Scott and R. Wise," *Computing Reviews*, 2004.  URL:  
[https://www.computingreviews.com/review/review\\_review.cfm](https://www.computingreviews.com/review/review_review.cfm).
- 30 **V. Pirrelli**, "Review of *PET and fMRI studies of the neural basis of speech perception*, by S. Scott and R. Wise," *Computing Reviews*, 2004.  URL:  
[https://www.computingreviews.com/review/review\\_review.cfm?review\\_id=130198](https://www.computingreviews.com/review/review_review.cfm?review_id=130198).










- 31 P. Allegrini, **V. Pirrelli**, and S. Montemagni, "Example-based automatic induction of semantic classes through entropic scores," *Linguistica Computazionale*, vol. 18–19, A. Zampolli, N. Calzolari, and L. Cignoni, Eds., pp. 1–45, 3 2003, *Computational Linguistics in Pisa*.
- 32 A. Lenci, **V. Pirrelli**, and S. Montemagni, "*Chunk-it*. an italian shallow parser for robust syntactic annotation," *Linguistica Computazionale*, vol. 18–19, A. Zampolli, N. Calzolari, and L. Cignoni, Eds., pp. 353–386, 3 2003, *Computational Linguistics in Pisa*.
- 33 S. Montemagni, F. Barsotti, **V. Pirrelli**, et al., "The syntactic-semantic Treebank of Italian. An Overview," *Linguistica Computazionale*, vol. 16–17, A. Zampolli, N. Calzolari, and L. Cignoni, Eds., pp. 461–492, 3 2003.
- 34 **V. Pirrelli**, "Review of *Foundations of Computational Linguistics*, by Roland Hausser," *Computing Reviews*, 2003.  URL: [https://www.computingreviews.com/review/review\\_review.cfm?review\\_id=127815](https://www.computingreviews.com/review/review_review.cfm?review_id=127815).
- 35 **V. Pirrelli** and M. Battista, "Syntagmatic and paradigmatic issues in computational morphology," *Linguistica Computazionale*, vol. 18–19, A. Zampolli, N. Calzolari, and L. Cignoni, Eds., pp. 679–702, 2 2003, *Computational Linguistics in Pisa*.
- 36 C. Soria and **V. Pirrelli**, "A multi-level annotation metascheme for dialogue acts," *Linguistica Computazionale*, vol. 18–19, A. Zampolli, N. Calzolari, and L. Cignoni, Eds., pp. 925–952, 2 2003, *Computational Linguistics in Pisa*.
- 37 **V. Pirrelli**, "Review of *Statistics for Corpus Linguistics*, by Michael P. Oakes," *International Journal of Corpus Linguistics*, vol. 5, no. 2, pp. 262–267, 2001.
- 38 S. Federici, S. Montemagni, and **V. Pirrelli**, "ROMANSEVAL: Results for Italian by SENSE," *Computers and the Humanities*, vol. 34, no. 1–2, pp. 199–204, 2000.
- 39 **V. Pirrelli** and M. Battista, "On the interaction of paradigmatic and syntagmatic stem alternation in Italian conjugation," *Acta Linguistica Hungarica*, vol. 47, no. 1–4, pp. 289–314, 2000.
- 40 **V. Pirrelli** and M. Battista, "The paradigmatic dimension of stem allomorphy in Italian verb inflection," *Italian Journal of Linguistics*, vol. 12, no. 2, pp. 307–380, 2000.
- 41 S. Federici, S. Montemagni, and **V. Pirrelli**, "Sense: An analogy-based word sense disambiguation system," *Natural Language Engineering*, vol. 5, no. 2, pp. 207–218, 1999.
- 42 **V. Pirrelli** and F. Yvon, "The hidden dimension: a paradigmatic view of data-driven NLP," *Journal of Experimental & Theoretical Artificial Intelligence*, vol. 11, no. 3, pp. 391–408, 1999.
- 43 S. Federici and **V. Pirrelli**, "Analogia, apprendimento automatico ed elaborazione del linguaggio naturale," *AI\* IA Notizie*, vol. 2, pp. 27–30, 1995.
- 44 S. Montemagni, N. Ruimy, and **V. Pirrelli**, "Ringing things which nobody can ring. a corpus-based study of the causative-inchoative alternation in italian," *Textus*, vol. 8, pp. 1000–1020, 1995.
- 45 R. Bindi, N. Calzolari, M. Monachini, **V. Pirrelli**, and A. Zampolli, "Corpora and computational lexica: Integration of different methodologies of lexical knowledge acquisition," *Literary and linguistic computing*, vol. 9, no. 1, pp. 29–46, 1994.
- 46 **V. Pirrelli** and S. Federici, "An analogical way to language modelling: Morpheus," *Acta Linguistica Hungarica*, vol. 41, no. 1/4, pp. 235–263, 1992.

## Conference Proceedings

- 1 **V. Pirrelli**, “Is the finger-voice span an indicator of reading proficiency?” In *Association for Written Language and Literacy’s 14th International Workshop on Writing Systems and Literacy (AWLL14) November 10-12, 2023 Rome, Italy*, 2023.  URL: <http://faculty-sgs.tama.ac.jp/terry/awll/WS/14/2023-ProgrammeAbstracts.pdf>.
- 2 **V. Pirrelli**, “Reading with the index finger: What a tablet can tell us about early graders’ reading skills,” in *E-Learning and Smart Engineering Systems (ELSES) May 11-13, 2023 Tetouan, Morocco*, 2023.  URL: <http://faculty-sgs.tama.ac.jp/terry/awll/WS/14/2023-ProgrammeAbstracts.pdf>.
- 3 A. Lento, C. Marzi, A. Nadalini, **V. Pirrelli**, and M. Ferro, “Reading at one’s finger tips: Inferring reading proficiency from finger-tracking patterns,” in *Proceedings of the International Conference on the Mental Lexicon October 12-14, 2022 Niagara-on-the-Lake, Ontario Canada*, 2022.  URL: <https://mentallexicon.artsrn.ualberta.ca/wp-content/uploads/2022/10/ML-Abstract-Booklet-v3.pdf>.
- 4 C. Marzi, A. Narzisi, M. Ferro, G. Masi, A. Milone, V. Viglione, S. Pelagatti, I. Tomassini, and **V. Pirrelli**, “Patterns of finger-tracking in italian early readers with autism spectrum disorder,” in *Proceedings of INSAR 2022 annual meeting May 11-14, 2022 Austin, Texas*, 2022.
- 5 C. Marzi and **V. Pirrelli**, “An information-theoretic analysis of the inflectional regular-irregular gradient for optimal processing units,” in *Proceedings of the 20th International Morphology Meeting-(Dedicated to the memory of Ferenc Kiefer) September 1-4, 2022 Budapest, Hungary*, 2022, pp. 50–51.
- 6 A. Nadalini, M. Ferro, A. Lento, **V. Pirrelli**, and C. Marzi, “Evidence for saccadic reading dynamic with finger-tracking speed rates,” in *Proceedings of the International Conference on the Mental Lexicon October 12-14, 2022 Niagara-on-the-Lake, Ontario Canada*, 2022.  URL: <https://mentallexicon.artsrn.ualberta.ca/wp-content/uploads/2022/10/ML-Abstract-Booklet-v3.pdf>.
- 7 C. Marzi, L. Taxitari, M. Ferro, A. Nadalini, and **V. Pirrelli**, “Valutare la lettura “in tempo reale”: Un esempio di integrazione tra linguistica computazionale e linguistica applicata,” in *Fare Linguistica Applicata con le Digital Humanities, XXI International Conference AltLA February 11-12, 2021 Bergamo, Italia*, 2021.
- 8 L. Taxitari, C. Cappa, M. Ferro, C. Marzi, A. Nadalini, and **V. Pirrelli**, “Using mobile technology for reading assessment,” in *Proceedings of 6th IEEE Congress on Information Science & Technology (IEEE CiST’20)*, Agadir, Morocco, 2021.
- 9 C. Marzi, A. Rodella, A. Nadalini, L. Taxitari, and **V. Pirrelli**, “Does finger-tracking point to child reading strategies?” In *Proceedings of 7th Italian Conference on Computational Linguistics*, J. Monti, F. Dell’Orletta, and F. Tamburini, Eds., vol. 2769, Bologna, 2020.
- 10 **V. Pirrelli**, “Emerging words in a vanishing lexicon: Prospects of interdisciplinary convergence,” in *Proceedings of CogAlex VI December 12, 2020 Barcelona, Spain*, 2020.
- 11 **V. Pirrelli**, C. Cappa, D. Crepaldi, V. Del Pinto, M. Ferro, S. Giulivi, C. Marzi, A. Nadalini, and L. Taxitari, “Tracking the pace of reading with finger movements,” *Words in the World International Conference*, Held virtually, 2020.

- 12 C. Marzi and **V. Pirrelli**, “Basic word units and the processing-storage dualism,” in *Proceedings of the International Cognitive Linguistics Conference (ICLC 15) August 6-11, 2019 Nishinomiya, Japan*, 2019.
- 13 C. Cappa, M. Ferro, S. Giulivi, C. Marzi, O. Nahli, F. A. Cardillo, and **V. Pirrelli**, “Readlet: Piattaforma ict per valutare l’efficienza di lettura,” in *27th National Conference AIRIPA September 28-29, 2018 Arezzo, Italy*, 2018.
- 14 M. Ferro, C. Cappa, S. Giulivi, C. Marzi, F. A. Cardillo, and **V. Pirrelli**, “ReadLet: an ICT platform for the assessment of reading efficiency in early graders,” in *11th International Conference on the Mental Lexicon - September 25-29, 2018 Edmonton, Canada*, 2018, p. 61.
- 15 C. Marzi, M. Ferro, O. Nahli, P. Belik, S. Bompolas, and **V. Pirrelli**, “Evaluating Inflectional Complexity Crosslinguistically: a Processing Perspective,” in *Proceedings of the 11th International Conference on Language Resources and Evaluation (LREC 2018), May 7-12, 2018 Miyazaki, Japan*, N. Calzolari, K. Choukri, C. Cieri, *et al.*, Eds., Paris: European Language Resources Association (ELRA), 2018, pp. 3860–3866, ISBN: 979-10-95546-00-9.
- 16 C. Marzi, M. Ferro, and **V. Pirrelli**, “Is inflectional irregularity dysfunctional to human processing?” In *11th International Conference On “The Mental Lexicon” September 25-28, 2018 Edmonton, Canada*, 2018, p. 60.
- 17 **V. Pirrelli**, “Nlp-based assessment of reading efficiency in early grade children,” in *Proceedings of the 3rd International Conference “Computational Linguistics in Bulgaria” May 27-29, 2018 Sofia, Bulgaria*, 2018.  URL: [https://dcl.bas.bg/clib2018/wp-content/uploads/2018/07/CLIB\\_2018\\_Proceedings\\_v2\\_final.pdf](https://dcl.bas.bg/clib2018/wp-content/uploads/2018/07/CLIB_2018_Proceedings_v2_final.pdf).
- 18 **V. Pirrelli**, M. Ferro, C. Marzi, C. Gagné, T. Spalding, and M. Marelli, “Processing compounds: What frequency (alone) cannot explain,” in *11th International Conference On “The Mental Lexicon” September 25-28, 2018 Edmonton, Canada*, 2018, p. 60.
- 19 S. Bompolas, C. Marzi, M. Ferro, F. A. Cardillo, **V. Pirrelli**, and A. Ralli, “Transparency and predictability in Modern Greek conjugation: Implications for models of word processing,” in *11th Mediterranean Morphology Meeting (MMM 11) June 22-25, 2017 Nicosia, Cyprus*, University of Cyprus, 2017, pp. 17–19.  URL: [http://www.lilec.it/mmm/wp/wp-content/uploads/2017/02/Book-of-abstracts\\_MMM11\\_Final.pdf](http://www.lilec.it/mmm/wp/wp-content/uploads/2017/02/Book-of-abstracts_MMM11_Final.pdf).
- 20 F. A. Cardillo, M. Ferro, C. Marzi, and **V. Pirrelli**, “How “deep” is learning word inflection?” In *Proceedings of the 4th Italian Conference on Computational Linguistics (CLiC-it 2017) December 11-13, 2017 Rome, Italy*, vol. 2006, CEUR-WS, 2017, ISBN: 978-88-99982-08-9.  URL: <http://www.scopus.com/record/display.url?eid=2-s2.0-85037368972&origin=inward>.
- 21 **V. Pirrelli**, “Co-activation and competition effects in lexical storage and processing,” in *Proceeding of the 4th Patras International Conference of Graduate Students in Linguistics May 20-22, 2016 Patras, Greece*, 2017, pp. 1–21.  URL: <https://picgl4.wordpress.com/>.
- 22 **V. Pirrelli**, “Storage vs. processing in models of word inflection. a neuro-computational hebbian perspective,” in *International Morphological Processing Conference (MoProc) June, 22-24 2017 Trieste, Italy*, International School for Advanced Studies (SISSA), 2017, pp. 18–19.  URL: <https://indico.sissa.it/event/12/abstract-book.pdf>.
- 23 **V. Pirrelli**, C. Marzi, M. Ferro, and F. A. Cardillo, “Paradigm relative entropy and discriminative learning,” in *ParadigMo 2017: First Workshop on Paradigmatic Word Formation Modeling, June*


19-20, 2017 Toulouse, France, CNRS, Université de Toulouse, 2017.  URL:  
<http://w3.erss.univ-tlse2.fr/ParadigMo2017/program.html>.

- 24 S. Bompolas, M. Ferro, C. Narzi, F. A. Cardillo, and **V. Pirrelli**, “Reassessing inflectional regularity in modern greek conjugation,” in *CLiC-it - Proceedings of Third Italian Conference on Computational Linguistics (CLiC-it 2016) December 5-7, 2016 Torino, Italy*, vol. 1749, CEUR-WS, 2016, pp. 72–77, ISBN: 978-88-99982-08-9.  URL: <http://ceur-ws.org/Vol-1749/paper12.pdf>.
- 25 M. Ferro, F. A. Cardillo, **V. Pirrelli**, C. L. Gagné, and T. L. Spalding, “Written word production and lexical self-organisation: Evidence from english (pseudo) compounds,” in *Proceedings of CLiC-it 2016 the 3rd Italian Conference on Computational Linguistics December 5-6, 2016 Napoli Italy*, P. Basile, A. Corazza, F. Cutugno, S. Montemagni, M. Nissim, V. Patti, G. Semeraro, and R. Sprugnoli, Eds., Napoli, Italy: CEUR-WS, 2016, pp. 156–151.  URL:  
<https://ceur-ws.org/Vol-1749/paper25.pdf>.
- 26 M. Ferro, C. Marzi, and **V. Pirrelli**, “Lexical parsability and morphological structure,” in *Proceeding of MMM9: Morphology and Semantics - September 15-18, 2014 Dubrovnik, Croati*, J. Audring, N. Koutsoukos, F. Masini, and I. Raffaelli, Eds., 2015, pp. 22–37.  URL:  
<https://publications.cnr.it/api/v1/documents/download/102175>.
- 27 C. Marzi, M. Ferro, and **V. Pirrelli**, “Lexical emergentism and the “frequency-by-regularity” interaction,” in *Proceedings of the Final NetWordS Conference “Word Knowledge and Word Usage: Representations and Processes in the Mental Lexicon” 31 March-1 April, 2015 Pisa, Italy*, **V. Pirrelli**, C. Marzi, and M. Ferro, Eds., vol. 1347, CEUR-WS, 2015, pp. 37–41.  URL:  
<https://ceur-ws.org/Vol-1347/paper08.pdf>.
- 28 **V. Pirrelli**, O. Nahli, F. Boschetti, R. Del Gratta, and C. Marzi, “Computational linguistics and language physiology: Insights from arabic nlp and cooperative editing,” in *Third AIUCD Annual Conference - Humanities and Their Methods in the Digital Ecosystem, September 18-19, 2015 Bologna, Italy*, F. Tomasi and R. Rosselli Del Turco, Eds., New York, Stati Uniti d’America - USA: ACM Press, 2015, pp. 1–8, ISBN: 978-88-99982-08-9.  DOI: 10.1145/2802612.2802637.
- 29 **V. Pirrelli**, C. Marzi, and M. Ferro, “Two-dimensional wordlikeness effects in lexical organisation,” in *Proceedings of the First Italian Conference on Computational Linguistics December 9-11, 2014 Pisa, Italy*, R. Basili, A. Lenci, and B. Magnini, Eds., Pisa University Press, 2014, pp. 301–305.  URL:  
<https://clic2014.fileli.unipi.it/proceedings/Proceedings-CLiC-it-2014.pdf>.
- 30 L. Verena, E. Stemle, C. Borghetti, M. Brunello, S. Castagnoli, F. Dell’Orletta, H. Dittmann, A. Lenci, and **V. Pirrelli**, “The paisà corpus of italian web texts,” in *Proceedings of the 9th Web as Corpus Workshop (WaC-9)*, F. Bildhauer and R. Schaefer, Eds., Contributo in Atti di convegno, The Association for Computational Linguistics, Stroudsburg, PA, USA, 2014, pp. 36–43.  URL:  
<https://aclweb.org/anthology/W/W14/W14-0400.pdf>.
- 31 B. Calderone and **V. Pirrelli**, “Apprendimento morfologico, relazioni base-derivato e topologie paradigmatiche. evidenze psico-computazionali a confronto,” in *Linguaggio e cervello / Semantica, Atti del XLII Convegno della Società di Linguistica Italiana September 25-27, 2008, Scuola Normale Superiore, Pisa Italy*, V. Bambini, I. Ricci, and P. M. Bertinetto, Eds., Bulzoni Editore, 2012.
- 32 H. Giraudo, F. Montermini, and **V. Pirrelli**, “Processi cognitivi nell’analisi delle classi verbali dell’italiano,” in *Linguaggio e cervello / Semantica, Atti del XLII Convegno della Società*


*diLinguistica Italiana September, 25-27 settembre 2008 Scuola Normale Superiore Pisa, Italy*, V. Bambini, I. Ricci, and P. M. Bertinetto, Eds., Bulzoni Editore, 2012.








- 33 C. Marzi, M. Ferro, C. Caudai, and **V. Pirrelli**, "Evaluating Hebbian Self-Organizing Memories for Lexical Representation and Access," in *8th International Conference on Language Resources and Evaluation May, 21-27 2012 Istanbul, Turkey*, ELRA, 2012, pp. 32-41, ISBN: 978-2-9517408-7-7.  
[URL: http://www.lrec-conf.org/proceedings/lrec2012/index.html](http://www.lrec-conf.org/proceedings/lrec2012/index.html).
- 34 C. Marzi, M. Ferro, and **V. Pirrelli**, "Prediction and generalisation in word processing and storage," in *Proceedings of the 8th Mediterranean Morphology Meeting (MMM8) September 14-17, 2011 Patras, Greece*, A. Ralli, G. Booij, S. Scalise, and A. Karasimos, Eds., University of Patras, 2012, pp. 114-131. [URL: http://morbo.lingue.unibo.it/mmm](http://morbo.lingue.unibo.it/mmm).
- 35 **V. Pirrelli** and E. Guevara, "Understanding NN Compounds," in *Linguaggio e cervello / Semantica, Atti del XLII Convegno della Società diLinguistica Italiana September, 25-27 2008 Pisa, Scuola Normale Superiore, Italy*, V. Bambini, I. Ricci, and P. M. Betinetto, Eds., Scuola Normale Superiore, 2012, pp. 32-41, ISBN: 978-2-9517408-7-7.
- 36 M. Ferro, C. Marzi, and **V. Pirrelli**, "T2HSOM: Understanding the Lexicon by Simulating Memory Processes for Serial Order," in *Proceedings of the ESSLI International Workshop on Lexical Resources (WoLER 2011) August 1-5, 2011 Ljubljana, Slovenia*, B. Sagot, Ed., 2011, pp. 33-42.  
[URL: http://alpage.inria.fr/~sagot/pub/WoLeR\\_2011\\_proceedings.pdf](http://alpage.inria.fr/~sagot/pub/WoLeR_2011_proceedings.pdf).
- 37 M. Baroni, E. Guevara, and **V. Pirrelli**, "Sulla tipologia dei composti N+N in italiano. Principi categoriali ed evidenza distribuzionale a confronto," in *Atti del XL Congresso Internazionale di Studi della Società di Linguistica Italiana (SLI 2006) "Linguistica e Modelli tecnologici della ricerca" September, 21-23 2009 Vercelli, Italy*, G. Ferrari, R. Benatti, and M. Mosca, Eds., ROMA - ITA: Bulzoni Editore, 2009, pp. 73-96, ISBN: 978-88-7870-469-5.
- 38 F. Dell'Orletta, A. Lenci, S. Marchi, S. Montemagni, and **V. Pirrelli**, "Text-2-Knowledge: una piattaforma linguistico-computazionale per l'estrazione di conoscenza da testi," in *Atti del XL Congresso Internazionale di Studi della Società di Linguistica Italiana (SLI 2006) "Linguistica e Modelli tecnologici della ricerca" September, 21-23 2009 Vercelli, Italy*, G. Ferrari, R. Benatti, and M. Mosca, Eds., 2009, ISBN: 978-2-9517408-7-7.
- 39 F. Dell'Orletta, A. Lenci, S. Montemagni, S. Marchi, **V. Pirrelli**, and G. Venturi, "Acquiring legal ontologies from domain-specific texts," in *LangTech 2008 February, 28-29 2008 Rome, Italy*, C. Delogu and M. Falcone, Eds., 2008, pp. 98-101. [URL: http://www.langtech.it/en/poster/19%5C\\_PIRRELLI.pdf](http://www.langtech.it/en/poster/19%5C_PIRRELLI.pdf).
- 40 A. Lenci, B. McGillivray, **V. Pirrelli**, and S. Montemagni, "Unsupervised Acquisition of Verb Subcategorization Frames from Shallow-Parsed Corpora," in *LREC 2008, Sixth International Conference on Language Resources and Evaluation May, 28-30 2008 Marrakech, Morocco*, N. Calzolari, K. Choukri, B. Maegaard, J. Mariani, J. Odjik, S. Piperidis, and D. Tapias, Eds., ELRA/ELDA, 2008, pp. 3000-3006, ISBN: 2-9517408-4-0. [URL: http://www.lrec-conf.org/proceedings/lrec2008/pdf/763%5C\\_paper.pdf](http://www.lrec-conf.org/proceedings/lrec2008/pdf/763%5C_paper.pdf).
- 41 F. Dell'Orletta, M. Federico, A. Lenci, S. Montemagni, and **V. Pirrelli**, "Maximum Entropy for Italian PoS Tagging," in *AI\*IA Special Issue: "Evaluation of NLP Tools for Italian - EVALITA 2007"*, B. Magnini and A. Cappelli, Eds., 2007, pp. 10-11. [URL: http://evalita.itc.it/proceedings/03-IA-IV-2-ILCcnrUniPi-pos.pdf](http://evalita.itc.it/proceedings/03-IA-IV-2-ILCcnrUniPi-pos.pdf).
- 42 A. Lenci, S. Montemagni, **V. Pirrelli**, and G. Venturi, "NLP-based ontology learning from legal texts. A case study," in *2nd Workshop on "Legal Ontologies and Artificial Intelligence Techniques"*








June 9, 2007 Rome, Italy, P. Casanovas, M. Biasiotti, E. Francesconi, and M. Sagri, Eds., Contributo in Atti di convegno, CEUR Workshop Proceedings, 2007, pp. 113–129.  URL: <http://ceur-ws.org/Vol-321/paper07.pdf>.

- 43 **V. Pirrelli**, “On the cognitive autonomy of morphological processing,” in *Morphologie à Toulouse. Actes du colloque international de Morphologie, 4th Décembrettes December, 1-2 2005 Toulouse, France*, H. Nabil and M. Fabio, Eds., Lincom-Europa, 2007, pp. 245–269, ISBN: 978-3895865046.
- 44 **V. Pirrelli** and I. Herreros, “Learning inflection by itself,” in *5th Mediterranean Morphology Meeting (MMM5) September, 15-18 2005 Fréjus, France*, G. Booij, L. Ducceschi, B. Fradin, E. Guevara, A. Ralli, and S. Scalise, Eds., Università di Bologna, 2007, pp. 269–290.  URL: [http://mmm.lingue.unibo.it/mmm-proc/MMM5/MMM5-Proceedings%5C\\_full.pdf](http://mmm.lingue.unibo.it/mmm-proc/MMM5/MMM5-Proceedings%5C_full.pdf).
- 45 C. Soria, R. Bartolini, A. Lenci, S. Montemagni, and **V. Pirrelli**, “Automatic extraction of semantics in law documents,” in *5th Legislative XML Workshop June, 14-16 2006*, C. Biagioli, F. Francesconi, and G. Sartor, Eds., 2007, pp. 253–266, ISBN: 9788883980466.  URL: [http://www.ilc.cnr.it/pubblicazioni/2007/Soria%5C\\_1.pdf](http://www.ilc.cnr.it/pubblicazioni/2007/Soria%5C_1.pdf).
- 46 R. Bartolini, C. Caracciolo, E. Giovannetti, A. Lenci, S. Marchi, **V. Pirrelli**, C. Renso, and L. Spinsanti, “Creation and Use of Lexicons and Ontologies for NL Interfaces to Databases,” in *Proceedings of the 5th International Conference on Language Resources and Evaluation May, 24-26 Genova, Italy*, N. Calzolari, K. Choukri, A. Gangemi, B. Maegaard, J. Mariani, J. Odijk, and D. Tapias, Eds., Paris, France: ELRA/ELDA, 2006, pp. 219–224.  URL: [http://www.lrec-conf.org/proceedings/lrec2006/pdf/674\\_pdf.pdf](http://www.lrec-conf.org/proceedings/lrec2006/pdf/674_pdf.pdf).
- 47 F. Dell’Orletta, A. Lenci, S. Montemagni, and **V. Pirrelli**, “Probing the space of grammatical variation,” in *COLING/ACL 2006 Workshop “Frontiers in Linguistically Annotated Corpora” July, 22 2006 Sydney, Australia*, A. Meyers, S. Nariyama, T. Baldwin, and F. Bond, Eds., Association for Computational Linguistics, 2006, pp. 21–28, ISBN: 1-932432-78-7.  URL: <https://aclanthology.org/W06-06.pdf>.
- 48 F. Dell’Orletta, A. Lenci, S. Montemagni, and **V. Pirrelli**, “Searching treebanks for functional constraints,” in *Proceedings of the 5th International Conference on Language Resources and Evaluation May, 24-26 Genova, Italy*, N. Calzolari, K. Choukri, A. Gangemi, B. Maegaard, J. Mariani, J. Odijk, and D. Tapias, Eds., Contributo in Atti di convegno, Paris, France: ELRA/ELDA, 2006, pp. 433–438.  URL: [http://www.lrec-conf.org/proceedings/lrec2006/pdf/651\\_pdf.pdf](http://www.lrec-conf.org/proceedings/lrec2006/pdf/651_pdf.pdf).
- 49 R. Bartolini, D. Giorgetti, A. Lenci, S. Montemagni, and **V. Pirrelli**, “Automatic incremental term acquisition from domain corpora,” in *Terminology and Content Development: TKE 2005. 7th International Conference on Terminology and Knowledge Engineering - August, 16-19 2005 Copenhagen, Denmark*, B. Nistrup Madsen and H. Erdman Thomsen, Eds., Litera, 2005, pp. 125–138.
- 50 F. Dell’Orletta, A. Lenci, S. Montemagni, and **V. Pirrelli**, “Climbing the grammar path: A maximum entropy model of subject/object learning,” in *Proceedings of the ACL Workshop on Psychocomputational Models of Human Language Acquisition June 29-30, 2005 Ann Arbor, Michigan*, W. G. Sakas, A. Clark, R. Holloway, J. Cussens, and A. Xanthos, Eds., Contributo in Atti di convegno, Ann Arbor, 2005, pp. 72–81.  URL: <https://aclanthology.org/W05-0509>.
- 51 R. Bartolini, A. Lenci, S. Montemagni, and **V. Pirrelli**, “Hybrid constraints for robust parsing,” in *Proceedings of the 4th International Conference on Language Resources and Evaluation May, 26-28*


Lisbon, Portugal, M. T. Lino, M. F. Xavier, F. Ferreira, R. Costa, and R. Silva, Eds., Paris, France: ELRA/ELDA, 2004, pp. 859–862.  URL: <https://aclanthology.org/L04-1463/>.





- 52 R. Bartolini, A. Lenci, S. Montemagni, **V. Pirrelli**, and C. Soria, “Automatic classification and analysis of provisions in legal texts,” in *“On the Move to Meaningful Internet Systems” 2004: OTM 2004 Workshops October 25-29, 2004 Agia Napa, Cyprus*, R. Meersman, Z. Tari, and A. Corsaro, Eds., ser. Lecture Notes in Computer Science, vol. 3292, Springer, 2004, pp. 593–604.  URL: [https://link.springer.com/chapter/10.1007/978-3-540-30470-8\\_72](https://link.springer.com/chapter/10.1007/978-3-540-30470-8_72).
- 53 R. Bartolini, A. Lenci, S. Montemagni, **V. Pirrelli**, and C. Soria, “Semantic mark-up of Italian legal texts through NLP-based techniques,” in *Proceedings of the Fourth International Conference on Language Resources and Evaluation (LREC’04)*, M. T. Lino, M. F. Xavier, F. Ferreira, R. Costa, and R. Silva, Eds., Lisbon, Portugal: European Language Resources Association (ELRA), May 2004.  URL: <http://www.lrec-conf.org/proceedings/lrec2004/pdf/709.pdf>.
- 54 **V. Pirrelli**, B. Calderone, I. Herreros, and M. Virgilio, “Non-locality all the way through: Emergent global constraints in the Italian morphological lexicon,” in *Proceedings of the 7th Meeting of the ACL Special Interest Group in Computational Phonology: Current Themes in Computational Phonology and Morphology, July 26, 2004 Barcelona, Spain*, J. Goldsmith and R. Wicentowski, Eds., Barcelona, Spain: Association for Computational Linguistics, 2004, pp. 11–19.  URL: <https://aclanthology.org/W04-0102>.
- 55 R. Bartolini, A. Lenci, S. Montemagni, and **V. Pirrelli**, “Grammar and lexicon in the robust parsing of italian. towards a non-naïve interplay,” in *“Grammar Engineering and Evaluation” Proceedings of the Coling-GEE 2002 Workshop August, 26-30 2002, New York - USA: ACL - Stroudsburg, PA 18360 - USA, 2002*.  URL: <https://dl.acm.org/doi/10.3115/1118783.1118784>.
- 56 R. Bartolini, A. Lenci, S. Montemagni, and **V. Pirrelli**, “The lexicon-grammar balance in the robust parsing of italian,” in *Proceedings of the 3rd International Conference on Language Resources and Evaluation (LREC’04), May, 29-31 2002 Las Palmas, Canary Islands - Spain*, M. González Rodríguez and C. P. Suarez Araujo, Eds., Paris, France: ELRA/ELDA, 2002, pp. 1521–1528.  URL: <http://www.lrec-conf.org/proceedings/lrec2002/pdf/316.pdf>.
- 57 **V. Pirrelli**, “Modelli computazionali per l’apprendimento e il cambiamento linguistico dell’italiano e dei suoi dialetti,” in *Tecnologie Informatiche nella promozione della lingua Italiana (TIPI) June, 25-26 2002 Rome, Italy*, R. ( I. S. d. C. e. d. T. d. Ministero delle Comunicazioni, Ed., 2002.
- 58 C. Soria, N. O. Bernsen, **V. Pirrelli**, et al., “Advanced tools for the study of natural interactivity,” in *Proceedings of the Third International Conference on Language Resources and Evaluation (LREC’02), May, 29-31 2002 Las Palmas, Canary Islands - Spain*, M. González Rodríguez and C. P. Suarez Araujo, Eds., European Language Resources Association (ELRA), 2002.  URL: <http://www.lrec-conf.org/proceedings/lrec2002/pdf/236.pdf>.
- 59 P. Allegrini, S. Montemagni, and **V. Pirrelli**, “Controlled bootstrapping of lexico-semantic classes as a bridge between paradigmatic and syntagmatic knowledge,” in *Proceedings of the 2nd International Conference on Language Resources and Evaluation (LREC’02) May, 31 - June, 2 2000 Athens, Greece*, 2000.  URL: <http://www.lrec-conf.org/proceedings/lrec2000/pdf/99.pdf>.
- 60 P. Allegrini, S. Montemagni, and **V. Pirrelli**, “Learning word clusters from data types,” in *COLING 2000: Proceedings of the 18th International Conference on Computational Linguistics*, vol. 1,


San francisco - USA: Morgan Kaufmann, 2000, pp. 8–14.  URL:  
<https://doi.org/10.3115/990820.990822>.

- 61 A. Lenci, S. Montemagni, **V. Pirrelli**, and C. Soria, “Where opposites meet. a syntactic meta-scheme for corpus annotation and parsing evaluation,” in *Proceedings of the 2nd International Conference on Language Resources and Evaluation (LREC’02) May, 31 - June, 2 2000 Athens, Greece, 2000*.  URL: <http://www.lrec-conf.org/proceedings/lrec2000/pdf/98.pdf>.
- 62 A. Lenci, S. Montemagni, **V. Pirrelli**, and C. Soria, “Fame: A functional annotation meta-scheme for multi-modal and multi-lingual parsing evaluation,” in *Computer Mediated Language Assessment and Evaluation in Natural Language: Proceedings of the IALL-ACL 1999 Workshop - June, 1999 Maryland, USA*, M. Broman Olsen, Ed., East Stroudsburg PA - USA: ACL, 1999, pp. 39–46.  URL: <https://aclanthology.org/W99-0407>.
- 63 **V. Pirrelli** and F. Yvon, “Analogy in the lexicon: A probe into analogy-based machine learning of language,” in *Proceedings of the 6th International Symposium on Human Communication, Santiago de Cuba - CUB: Editorial Oriente, 1999*, pp. 576–581.
- 64 C. Soria and **V. Pirrelli**, “A recognition-based meta-scheme for dialogue acts annotation,” in *Towards Standards and Tools for Discourse Tagging June, 21 1999 Maryland, USA*, M. Walker, Ed., East Stroudsburg PA - USA: ACL, 1999, pp. 75–83.  URL: <https://aclanthology.org/W99-0310>.
- 65 M. Battista and **V. Pirrelli**, “Schemi distribuzionali e regole fonologiche nella coniugazione dell’italiano,” in *Atti della 5a Conferenza SILFI October, 15-17 1998 Catania, Italy, 1998*.
- 66 S. Federici, S. Montemagni, and **V. Pirrelli**, “Chunking Italian. Linguistic and Task-oriented Evaluation,” in *LREC 1998 Workshop On “Evaluation of parsing systems” May 26, 1998 Granada, Spain*, J. Carroll, R. Basili, N. Calzolari, and G. Grefenstette, Eds., 1998, p. 8.
- 67 S. Federici, S. Montemagni, **V. Pirrelli**, and N. Calzolari, “Analogy-based Extraction of Lexical Knowledge from Corpora: the SPARKLE experience,” in *Proceedings of the 1st International Conference on Language Resources and Evaluation (LREC’98) May 28-30, 1998 Granada, Spain, Paris, France: ELRA/ELDA, 1998*.
- 68 S. Montemagni and **V. Pirrelli**, “Augmenting WordNet-like lexical resources with distributional evidence. An application-oriented perspective,” in *Coling Workshop “Use of WordNet in Natural Language Processing Systems” August, 16 1998 Montreal, Canada*, S. Harabagiu, Ed., East Stroudsburg PA - USA: ACL, 1998, pp. 87–93.  URL: <https://aclanthology.org/W98-0712>.
- 69 M. Battista and **V. Pirrelli**, “The paradigmatic dimension of velar softening in italian inflection,” in *Proceedings of the ESSLI Workshop on “Formal Elegance and Natural Complexity in Morphology” August, 18-22 1997 Aix en Provence, France*, D. Brown, Ed., ESSLI, 1997.
- 70 S. Federici, S. Montemagni, and **V. Pirrelli**, “Inferring semantic similarity from distributional evidence: An analogy-based approach to word sense disambiguation,” in *Proceedings of the ACL/EACL-97 “Workshop On Automatic Information Extraction and Building of Lexical Semantic Resources for NLP Applications” July 12, 1997 Madrid, Spain*, P. Vossen, G. Adriaens, N. Calzolari, A. Sanfilippo, and Y. Wilks, Eds., 1997.  URL: <https://aclanthology.org/W97-0813>.
- 71 S. Federici, S. Montemagni, **V. Pirrelli**, and N. Calzolari, “Acquiring NLP lexica from running texts,” in *Atti AI\*IA del Workshop ‘Apprendimento Automatico e Linguaggio Naturale’ December, 9-10 1997, 1997*.
- 72 M. Battista and **V. Pirrelli**, “Descriptive economy and the morphological lexicon. on the use of interparadigmatic schemata in a computational lexicon for the morphology of italian,” in



*Proceedings of the 7th EURALEX International Congress*, M. Gellerstam, J. Järborg, S.-G. Malmgren, K. Norén, L. Rogström, and C. Røjder Papmehl, Eds., Göteborg, Sweden: Novum Grafiska AB, 1996, pp. 45–55, ISBN: 91-87850-14-1.  URL: <https://euralex.org/publications/descriptive-economy-and-the-morphological-lexicon-on-the-use-of-interparadigmatic-schemata-in-a-computational-lexicon-for-the-morphology-of-italian/>.

- 73 S. Federici, S. Montemagni, and **V. Pirrelli**, “Shallow Parsing and Text Chunking: a View on Underspecification in Syntax,” in *Proceedings of ESSLLI’96 Workshop on Robust Parsing*, 1996, pp. 35–44.
- 74 S. Federici, S. Montemagni, and **V. Pirrelli**, “Shallow Parsing and Text Chunking: a View on Underspecification in Syntax,” in *ESSLLI Workshop On “Robust Parsing” August 12–16, 1996 Prague, Czech Republic*, J. Carroll and T. Briscoe, Eds., Amsterdam Utrecht, the Netherlands: ESSLI, 1996.
- 75 S. Montemagni, S. Federici, and **V. Pirrelli**, “Example-based word sense disambiguation: A paradigm-driven approach\*,” in *Proceedings of the 7th EURALEX International Congress*, M. Gellerstam, J. Järborg, S.-G. Malmgren, K. Norén, L. Rogström, and C. Røjder Papmehl, Eds., Göteborg, Sweden: Novum Grafiska AB, 1996, pp. 147–157, ISBN: 91-87850-14-1.  URL: <https://euralex.org/publications/example-based-word-sense-disambiguation-a-paradigm-driven-approach/>.
- 76 S. Montemagni, S. Federici, and **V. Pirrelli**, “Resolving syntactic ambiguities with lexico-semantic patterns,” in *COLING 1996 Volume 1: The 16th International Conference on Computational Linguistics August, 5–9 1996 Copenhagen, Denmark*, East Stroudsburg PA - USA: ACL, 1996, pp. 376–381.  URL: <http://acl.ldc.upenn.edu/C/C96/C96-1064.pdf>.
- 77 **V. Pirrelli** and M. Battista, “Monotonic paradigmatic schemata in Italian verb inflection,” in *COLING 1996 Volume 1: The 16th International Conference on Computational Linguistics August, 5–9 1996 Copenhagen, Denmark*, East Stroudsburg PA - USA: ACL, 1996, pp. 77–82.  URL: <https://aclanthology.org/C96-1015>.
- 78 S. Federici, **V. Pirrelli**, and F. Yvon, “Advances in analogy-based learning: False friends and exceptional items in pronunciation by paradigm-driven analogy,” in *IJCAI’95 Workshop on “Learning for Natural Language Processing” August, 1995 Montreal, Canada*, S. Wermter, E. Riloff, and G. Scheler, Eds., 1995.
- 79 S. Montemagni and **V. Pirrelli**, “Do lexical rules apply across the board? a corpus-based investigation in the machinery of causative-inchoative alternation in italian,” in *Proceedings of the ACQUILEX II Workshop on Lexical Rules*, 1995.
- 80 **V. Pirrelli** and S. Federici, ““you’d better say nothing than say something wrong”: Analogy, Accuracy and Text-to-speech Applications,” in *Proceedings of the 4th European Conference on Speech Communication and Technology (Eurospeech 1995) September, 18–21 1995 Madrid, Spain*, 1995, pp. 855–858.  DOI: 10.21437/Eurospeech.1995-195.
- 81 **V. Pirrelli** and the Onomastica Consortium, “The onomastica interlanguage pronunciation lexicon,” in *Proceedings of the 4th European Conference on Speech Communication and Technology (Eurospeech 1995) September, 18–21 1995 Madrid, Spain*, 1995.
- 82 S. Federici and **V. Pirrelli**, “Linguistic analogy as a computable process,” in *Proceedings of NEMLAP ’94: New Methods in Language Processing, September, 1994 Manchester UK*, 1994.

- 83 S. Federici and **V. Pirrelli**, “The compilation of large pronunciation lexica: The elicitation of letter-to-sound patterns through analogy-based networks,” in *Papers in Computational Lexicography: COMPLEX '94*, F. Kiefer, G. Kiss, and J. Pajsz, Eds., Budapest, Hungary: Hungarian Academy of Sciences Press, 1994, pp. 59–67.
- 84 S. Montemagni, S. Federici, and **V. Pirrelli**, ““who’s what?” generalization by analogy and the problem of subject/object identification in Italian,” in *Proceedings of NEMLAP '94: New Methods in Language Processing, September, 1994 Manchester UK*, 1994.
- 85 **V. Pirrelli** and S. Federici, “Corpus-based acquisition of inflectional paradigms in Italian,” in *Proceedings of CSNLP '94 July, 6-8 1994 Dublin, Ireland*, A. I. C. Mohagan, Ed., Dublin, Ireland: University College Dublin, 1994, p. 9.
- 86 **V. Pirrelli** and S. Federici, “Derivational Paradigms in Morphology,” in *Proceedings of COLING 1994, 15th International Conference on Computational Linguistics August, 5-9 1994 Kyoto, Japan*, 1994, pp. 234–242.  URL: <http://acl.ldc.upenn.edu/C/C94/C94-1037.pdf>.
- 87 S. Federici and **V. Pirrelli**, “The representation of combinatorial structures in parallel networks: ANTAEUS a self-modelling tagger,” in *Proceedings of the 1st International Conference on Mathematical Linguistics (ICML '93) April, 4-7 1993 Barcelona, Spain*, C. Martin-Vide, Ed., 1993.
- 88 S. Federici and **V. Pirrelli**, “A bootstrapping strategy for lemmatisation: Learning through examples,” in *Papers in Computational Lexicography: COMPLEX '92*, F. Kiefer, G. Kiss, and J. Pajsz, Eds., Budapest, Hungary: Hungarian Academy of Sciences Press, 1992, pp. 123–136.
- 89 R. Bindi, N. Calzolari, M. Monachini, and **V. Pirrelli**, “Lexical knowledge acquisition from textual corpora: A multivariate statistical approach as an integration to traditional methodologies,” in *Using Corpora: Proceedings of the 7th Annual Conference of the UW Centre for the New OED and Text Research, September, 29 - October, 1 1991 Oxford, UK*, Waterloo, Canada: University of Waterloo Press, 1991.

## Book Articles and Chapters

- 1 D. Crepaldi, M. Ferro, C. Marzi, A. Nadalini, **V. Pirrelli**, and L. Taxitari, “Finger movements and eye movements during adults’ silent and oral reading,” in *Developing language and literacy: Studies in honor of Dorit Diskin Ravid*, R. Levie, A. Bar-On, O. Ashkenazi, E. Dattner, and G. Brandes, Eds. Springer, 2022, pp. 1–31.
- 2 C. Marzi and **V. Pirrelli**, “Psycholinguistic Research on Inflectional Morphology in the Romance Languages,” in *Oxford Encyclopedia of Romance Linguistics*, M. Loporcaro, Ed. Oxford University Press, 2022, pp. 1–44.
- 3 S. Montemagni and **V. Pirrelli**, “La linguistica computazionale tra intelligenza artificiale e scienze umane e sociali: Risultati scientifici e tecnologici, sfide aperte e ricadute applicative,” in *Le scienze umane, sociali e del patrimonio culturale nell’era delle grandi transizioni*, A. Filippetti, Ed. CNR Edizioni, 2022, pp. 201–230.
- 4 C. Marzi, J. P. Blevins, G. Booij, and **V. Pirrelli**, “Inflection at the morphology-syntax interface,” in *Word knowledge and word usage. A cross-disciplinary guide to the mental lexicon*, V. Pirrelli, I. Plag, and U. W. Dressler, Eds. Mouton De Gruyter, 2020, pp. 228–294.
- 5 **V. Pirrelli**, C. Marzi, M. Ferro, F. A. Cardillo, H. R. Baayen, and P. Milin, “Psycho-computational modelling of the mental lexicon. a discriminative learning perspective,” in *Word knowledge and*





word usage. *A cross-disciplinary guide to the mental lexicon*, V. Pirrelli, I. Plag, and U. W. Dressler, Eds. Mouton De Gruyter, 2020, pp. 23–82.

- 6 **V. Pirrelli**, I. Plag, and U. W. Dressler, “Word knowledge in a cross-disciplinary world,” in *Word knowledge and word usage. A cross-disciplinary guide to the mental lexicon*, V. Pirrelli, I. Plag, and U. W. Dressler, Eds. Mouton De Gruyter, 2020, pp. 1–20.
- 7 B. Calderone and **V. Pirrelli**, “New computational methods and the study of romance languages,” in *Oxford Encyclopedia of Romance Linguistics*, M. Loporcaro, Ed. Oxford University Press, 2019, pp. 1–24.
- 8 **V. Pirrelli**, “Morphological theory and computational linguistics,” in *The Oxford Handbook of Morphological Theory*, J. Audring and F. Masini, Eds. Oxford: Oxford University Press, 2018, pp. 573–593.
- 9 **V. Pirrelli**, M. Ferro, and C. Marzi, “Computational complexity of abstractive morphology,” in *Understanding and Measuring Morphological Complexity*, M. Baerman, D. Brown, and G. G. Corbett, Eds. Oxford: Oxford University Press, 2015, pp. 141–166.
- 10 **V. Pirrelli**, M. Ferro, and B. Calderone, “Learning paradigms in time and space. Computational evidence from Romance languages,” in *Morphological autonomy: Perspectives from Romance inflectional morphology*, M. Maiden, J. C. Smith, M. Goldbach, and M. O. Hinzelin, Eds., Oxford University Press, 2011, pp. 135–157.
- 11 **V. Pirrelli**, E. Guevara, and M. Baroni, “Computational issues in compound processing,” in *Cross-disciplinary issues in compounding*, I. Vogel and S. Scalise, Eds. John Benjamins, 2010, pp. 271–286.
- 12 A. Lenci, S. Montemagni, and **V. Pirrelli**, “Annotazione sintattica di corpora: Aspetti metodologici,” in *Corpora di italiano L2: tecnologie, metodi, spunti teorici*, C. Andorno and S. Rastelli, Eds., Guerra Edizioni, 2009, pp. 25–46.
- 13 A. Lenci, S. Montemagni, **V. Pirrelli**, and G. Venturi, “Ontology learning from italian legal texts,” in *Law, Ontologies and the Semantic Web*, ser. Frontiers in Artificial Intelligence and Applications, vol. 188, IOS Press, 2009, pp. 75–94.
- 14 F. Dell’Orletta, A. Lenci, S. Montemagni, **V. Pirrelli**, et al., “Corpus-based modelling of grammar variation,” in *Language Resources and Linguistic Theories*, A. Sansò, Ed., FrancoAngeli, 2007, pp. 38–55.
- 15 **V. Pirrelli**, “Machine language learning meets information technology,” in *Linguistica e Nuove Professioni*, A. Giacalone Ramat, E. Rigotti, and A. Rocci, Eds., Franco Angeli, 2003, pp. 140–160.
- 16 A. Lenci, **V. Pirrelli**, and S. Montemagni, “Acquiring and representing meaning: Theoretical and computational perspectives,” in *Acquisition and Representation of Word Meaning*, A. Lenci, S. Montemagni, and **V. Pirrelli**, Eds., Istituti editoriali e poligrafici internazionali, 2002, pp. 19–66.
- 17 **V. Pirrelli**, “Per un superamento della dicotomia lessico-grammatica. Aspetti di composizionalità ‘debole’ nel linguaggio,” in *La lessicografia bilingue tra presente e avvenire*, E. Ferrario and V. Pulcini, Eds., Edizioni Mercurio Vercelli, Italy, 2002, pp. 187–203.
- 18 S. Federici, S. Montemagni, and **V. Pirrelli**, “Analogy-based automatic acquisition of phraseology,” in *Las lenguas de Europa: Estudios de Fraseología, Fraseografía y Traducción*, G. Corpas, Ed., 2000, pp. 39–74.

- 19 S. Federici and **V. Pirrelli**, “Analogy, computation, and linguistic theory,” in *New methods in language processing*, D. Jones and H. Somers, Eds., 1997, pp. 16–34.
- 20 S. Federici, S. Simonetta, and **V. Pirrelli**, “Constraints and preferences at work: An analogy-based approach to parsing grammatical relations,” in *New Methods in Language processing*, D. Jones and H. Somers, Eds., 1997, pp. 35–52.
- 21 **V. Pirrelli** and S. Federici, “Context-sensitivity and linguistic structure in analogy-based parallel networks,” in *North-Holland Linguistic Series: Linguistic Variations*, S. Wermter, E. Riloff, and G. Scheler, Eds., vol. 56, Elsevier, 1994, pp. 353–362.

## Edited Books/Special Issues/Proceedings

- 1 C. Marzi and **V. Pirrelli**, Eds., *Integrative views of representations and processes in Morphology*, Morphology 2023.  URL: <https://www.springer.com/journal/11525>.
- 2 **V. Pirrelli**, H. Baayen, W. Daelemans, and R. Malouf, Eds., *Implications of Psycho-computational Modelling for Morphological Theory*, *Frontiers in Psychology* 2022.  URL: <https://doi.org/10.3389/978-2-88976-541-6>.
- 3 **V. Pirrelli**, H. Rodriguez, and A. Zarghili, Eds., *Machine Learning and Natural Language Processing*, *International Journal of Information Science and Technology* vol. 6, 3 2022.  URL: <https://www.innove.org/ijist/index.php/ijist/issue/view/19>.
- 4 M. Zock, S. De Deyne, M. Stella, and **V. Pirrelli**, Eds., *The Mental Lexicon, Blueprint of the Dictionaries of Tomorrow: Cognitive Aspects of the Lexicon*, *Frontiers in Artificial Intelligence* 2022.  URL: <https://doi.org/10.3389/frai.2022.945705>.
- 5 **V. Pirrelli**, I. Plag, and U. W. Dressler, Eds., *Word knowledge and word usage. A cross-disciplinary guide to the mental lexicon*, Mouton De Gruyter, 2020.  URL: <https://www.degruyter.com/document/doi/10.1515/9783110440577/html>.
- 6 **V. Pirrelli**, O. Nahli, and M. Chahhou, Eds., *Machine Learning and Natural Language Processing*, *International Journal of Information Science and Technology* vol. 3, 5 2019.  URL: <https://www.innove.org/ijist/index.php/ijist/issue/view/9>.
- 7 **V. Pirrelli** and A. Zarghili, Eds., *Special Issue on Arabic Natural Language Processing: Models, Systems and Applications*, *Journal of King Saud University - Computer and Information Sciences* vol. 29 2 2017.  URL: <http://www.sciencedirect.com/science/journal/13191578/29/2>.
- 8 M. El Mohajir, M. Chahhou, M. Al Achhab, B. El Mohajir, **V. Pirrelli**, and A. Zarghili, Eds., *Proceedings of the 4th International Colloquium on Information Science and Technology (Tangier (Morocco) October 24-26, 2016)*, vol. CFP1667R-ART, Piscataway, NJ : IEEE, 2016, ISBN: 978-1-5090-0751-6.
- 9 C. Marzi and **V. Pirrelli**, Eds., *Special issue on word knowledge and word usage*, *Italian Journal of Linguistics* vol. 28 1 2016.  URL: <https://www.italian-journal-linguistics.com/2016-2/>.
- 10 C. Marzi and **V. Pirrelli**, Eds., *Special issue on word knowledge and word usage*, *Lingue e Linguaggio* vol. 15 1 2016.  URL: <https://www.rivisteweb.it/issn/1720-9331/issue/6932>.
- 11 **V. Pirrelli**, C. Marzi, and M. Ferro, Eds., *Proceedings of the Final NetWordS Conference “Word Knowledge and Word Usage: Representations and Processes in the Mental Lexicon” 31 March-1 April, 2015 Pisa, Italy*, vol. 1347, CEUR-WS, 2015.  URL: <https://ceur-ws.org/Vol-1347/>.

- 12 M. El Mohajir, M. Al Achhab, M. Chahhou, M. Arioua, B. El Mohajir, **V. Pirrelli**, A. Zarghili, and M. ElFar, Eds., *Proceedings of the 3rd International Colloquium on Information Science and Technology (Tetouan (Morocco) October 20-22, 2014*, vol. CFP1467R-ART, Piscataway, NJ : IEEE, 2014, ISBN: 978-1-4799-5978-5.  URL: <http://dx.doi.org/10.1109/CIST.2014.7016582>.
- 13 I. Raffaelli and **V. Pirrelli**, Eds., *Special Issue, Suvremena Lingvistika* vol. 40 78 2014.  URL: <https://suvlin.ffzg.hr/index.php/en/browse-archive/19-vol-40-no-78-12-2014>.
- 14 **V. Pirrelli**, Ed., *Interdisciplinary approaches to understanding word processing and storage, Lingue e Linguaggio* vol. 9 2 2010.  URL: <https://www.rivisteweb.it/issn/1720-9331/issue/3254>.
- 15 **V. Pirrelli**, Ed., *Psychocomputational issues in Morphology Learning, Lingue e Linguaggio* vol. 6 2 2007.  URL: <https://www.rivisteweb.it/issn/1720-9331/issue/218>.
- 16 A. Lenci, S. Montemagni, and **V. Pirrelli**, Eds., *Acquisition and Representation of Word Meaning. Theoretical and Computational Perspectives, Linguistica Computazionale* vol. XXII-XXIII 2005, ISSN: 0392-6907.
- 17 A. Lenci, S. Montemagni, and **V. Pirrelli**, Eds., *Linguistic Knowledge Acquisition and Representation: Bootstrapping Annotated Language Data*, Paris, France: European Language Resources Association (ELRA), 2002.
- 18 A. Lenci, S. Montemagni, and **V. Pirrelli**, Eds., *Semantic Knowledge Acquisition and Categorisation*, Utrecht-Amsterdam, The Netherlands: ESSLLI, 2001.