



Proceedings of the  
**Doctoral Symposium of the XXXIV  
International Conference of the Spanish  
Society for Natural Language Processing  
(SEPLN 2018)**

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# Preface

This volume contains the papers from the Doctoral Symposium of the XXXIV International Conference of the Spanish Society for Natural Language Processing (SEPLN-DS), held on September 19, 2018, in Seville, Spain.

This scientific event convened PhD researchers with an interest in the latest research work and developments in the field of Natural Language Processing (NLP), employing computational techniques for the purpose of learning, understanding, and producing human language content, as well as new possibilities of real-world applications and R&D projects in this field.

The present volume includes the ten following papers, submitted in English or Spanish:

- Meaning, distribution and frequency of the prepositional category in spanish. A computational approach  
Francesc Reina González (Universidad de Barcelona)
- Design and evaluation of a mobile application for second language pronunciation training based on minimal pairs  
Cristian Tejedor-García (Universidad de Valladolid)
- The role of sarcasm in hate speech. A multilingual perspective  
Simona Frenda (Universidad Politécnica de Valencia, University of Turin)
- Fact checking: detecting and verifying facts  
Bilal Ghanem (Universidad Politécnica de Valencia)
- Emotions analysis in spanish texts  
Flor Miriam Plaza del Arco (Universidad de Jaén)
- Knowledge integration for improving information retrieval systems  
Pilar López Úbeda (Universidad de Jaén)
- Sequence models to boost document planning and discourse generation  
Marta Vicente (Universidad de Alicante)
- Machine learning-based adaptive grounding for negotiative dialogue management  
José Luis Pro Martín (Universidad de Sevilla)
- Progress in the modeling of cyberbullying from the perspective of the human language technologies  
Beatriz Botella Gil (Universidad de Alicante)
- Automatic evaluation and prosody improvement of people with down syndrome based on serious games  
Mario Corrales-Astorgano (Universidad de Valladolid)

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Last but not least, thanks to all those who submitted papers to the symposium, as well as to all mentors that agreed to review submitted papers and all those who contributed to discussions on the day. We also acknowledge the publisher CEUR-WS, which greatly aided the publication of this volume.