

R2LM 2025

**Proceedings of the
First Workshop on Comparative Performance Evaluation:
From Rules to Language Models**

associated with
**The 15th International Conference on
Recent Advances in Natural Language Processing
RANLP'2025**

Edited by Alicia Picazo-Izquierdo, Ernesto Luis Estevanell-Valladares, Ruslan Mitkov,
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11 September, 2025
Varna, Bulgaria

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PROCEEDINGS

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Preface

The rapid growth of deep learning and large language models has transformed the field of natural language processing (NLP), driving remarkable progress in tasks that once seemed out of reach. Yet, as these models scale in size and capability, critical challenges remain. Issues of interpretability, robustness, long-context reasoning, and the substantial data and computational resources required continue to raise questions about their universality. At the same time, rule-based and knowledge-based approaches, once considered traditional or even outdated, are being reconsidered. Their strengths in precision, explainability, and adaptability to low-resource or domain-specific contexts make them valuable complements to data-driven methods. This workshop aims to unite researchers from various fields of symbolic, statistical, and hybrid methods to assess their comparative performance, understand their limitations, and explore how they can work together most effectively. By encouraging dialogue between different research methodologies and highlighting emerging trends such as retrieval-augmented generation, neurosymbolic AI, and knowledge graph-driven systems, we aim to establish a path towards more robust, efficient, and transparent NLP technologies. We hope that the contributions gathered here will not only advance methodological understanding but also inspire a more balanced and inclusive vision for the future of language technology.

Workshop Chairs

- Alicia Picazo-Izquierdo (University of Alicante)
- Ernesto Luis Estevanell-Valladares (University of Alicante, University of Havana)
- Ruslan Mitkov (Lancaster University, University of Alicante)
- Rafael Munoz Guillena (University of Alicante)
- Raul Garcia Cerda (University of Alicante)

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- Sina Ahmadi (University of Zurich)
- Heili Orav (University of Tartu)
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16:30–17:00 *Detection of AI-generated Content in Scientific Abstracts*

Ernesto Luis Estevanell-Valladares, Alicia Picazo-Izquierdo and Ruslan Mitkov

11:00–11:30 *A Comparative Study of Hyperbole Detection Methods: From Rule-Based Approaches through Deep Learning Models to Large Language Models*

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Improved Contrastive Learning over Commonsense Knowledge Graphs for Unsupervised Reasoning
Rongwen Zhao and Jeffrey Flanigan

TextBandit: Evaluating Probabilistic Reasoning in LLMs Through Language-Only Decision Tasks
Arjun Damerla, Jimin Lim, Yanxi Jiang, Nam Nguyen Hoai Le and Nikil Selladurai