

Advanced Methods for Corpus Processing

Lluís Padró <padro@lsi.upc.edu>

Lluís Màrquez <lluism@lsi.upc.edu>

German Rigau <german.rigau@ehu.es>



**Centre de Tecnologies i Aplicacions
del Llenguatge i la Parla**

Foreword

- UPC: Artificial Intelligence
 - EMNLP: Empirical Methods for NLP
 - 2001/2002-2002/2003
 - Lluís Padró, Lluís Màrquez, German Rigau
 - 2003/2004-2004/2005
 - Lluís Padró, Lluís Màrquez, Neus Català, German Rigau
 - 2005/2006
 - L. Padró, L. Màrquez, X. Farreres, J. Daudé, G. Rigau
- EHU: NLP
 - Advanced Methods for Corpus Management
 - 2004/2005-...-2013/2014
 - Lluís Padró, Lluís Màrquez, German Rigau

Content

- Statistical methods for NLP (Lluís Padró)
 - 17/2, 18/2 : 16h – 19:30h
- Machine Learning for NLP (Lluís Màrquez)
 - 19/2, 20/2 : 16h – 19:30h
- Ontologies & large-scale Knowledge Bases for NLP (German Rigau)
 - 3/3, 4/3, 5/3, 6/3: 15:30h – 17:30h
 - 10/3, 11/3, 12/3: 15:30h – 17:30h
- Concluding remarks (German Rigau)
 - 13/3: 15:30h - 17:30h

Content

- Statistical methods for NLP (Lluís Padró)
 - Mathematical Foundations
 - Linguistic Foundations
 - Corpora
 - Statistical Inference
 - Markov Models
 - Tagging
 - Maximum Entropy Models

Content

- Machine Learning for NLP (Lluís Màrquez)
 - Introduction: Machine Learning and Machine Learning for NLP
 - Machine Learning: Classical Methods from AI
 - Margin-based Machine Learning Algorithms
 - Machine Learning for NLP
 - Applications

Content

- Knowledge-based NLP (German Rigau)
 - Words & Works
 - Ontologies:
 - SUMO
 - Large-scale Knowledge Bases:
 - WordNet & EuroWordNet
 - More large-scale resources
 - ConceptNet, Framenet, VerbNet, PropBank, ...
 - Building Wordnets
 - WordNet extensions:
 - SUMO ontology, eXtended WordNet, MCR
- Concluding remarks (German Rigau)
 - Reasoning

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