

# Web Search: Techniques, algorithms and Applications

Eneko Agirre <[e.agirre@ehu.edu](mailto:e.agirre@ehu.edu)>  
German Rigau <[german.rigau@ehu.es](mailto:german.rigau@ehu.es)>



# Content

- Basic Techniques for Web Search (Eneko Agirre)
  - 8h (13-16/02: 17:30h - 19:30h)
- NLP Tools & Resources for Web Search (German Rigau)
  - 8h (20-23/02: 17:30h - 19:30h)
- Applications (students)
  - Proposals: 2h (24/02: 17:30h - 19:30h)
  - Presentations: 4h (1/03: 17:30h - 19:30h)

# Content

- Basic Techniques for Web Search (Eneko Agirre)
  - Information Retrieval (IR)
  - Information Extraction (IE)
  - Question Answering (Q\A)
  - Clustering
  - Classification
  - Summarisation
  - Multilingüism
    - Cross-lingual Information Retrieval (CLIR)
    - Machine Translation (MT)

# Content

- NLP Tools (German Rigau)
  - Basic Tools
    - Tokenization
    - Sentence Splitting
    - Language Identifiers
    - Lemmatization, POS tagging
    - Named Entity Recognizers and Categorizers (NERC)
    - Parsing
    - Word Sense Disambiguation (WSD)
    - Semantic Role Labelling (SRL)

# Content

- Resources (German Rigau)
  - Words & Works
  - Ontologies:
    - Mikrokosmos
  - Large-scale Knowledge Bases:
    - WordNet & EuroWordNet
  - More large-scale resources
    - ConceptNet, Framenet, VerbNet, PropBank, ...
  - Building Wordnets
  - WordNet extensions:
    - SUMO ontology, eXtended WordNet, Meaning project
  - Reasoning

# Evaluation

- Applications of Web Search:
  - Student/teacher topic
- Two options:
  - Deadline to decide: 24/02
  - Short presentation + report
    - ~ 20 slides + 2000 words
    - Presentation: 1/03
    - Report: 4/04
  - Short paper describing an experimental work
    - ~ 3000 words
    - Format: <http://www.acl2011.org/call.shtml>
    - Deadline : 4/04

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