

Mireia Farrús, Ph.D.

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Academic Background

- 2004 – 2008 📌 **Ph.D. (CL), Universitat Politècnica de Catalunya, Catalonia** in Natural Language Processing.
Thesis title: *Fusing Prosodic and Acoustic Information for Speaker Recognition*.
More details at <http://www.tesisenred.net/handle/10803/31779>
- 2000 – 2003 📌 **B.A. Linguistics, Universitat de Barcelona, Catalonia.**
- 1993 – 1998 📌 **B.Sc. Physics, Universitat de Barcelona, Catalonia.**
- 1984 – 1999 📌 **Music Studies, Conservatori Superior Municipal de Música de Barcelona.**

Employment History

- 2017 – 📌 **Ramón y Cajal fellow.** TALN Research Group, Department of Information and Communication Technologies, Universitat Pompeu Fabra, Barcelona.
- 2014 – 2017 📌 **Juan de la Cierva fellow.** TALN Research Group, Department of Information and Communication Technologies, Universitat Pompeu Fabra, Barcelona.
- 2012 – 2014 📌 **Visiting Lecturer.** TALN Research Group, Department of Information and Communication Technologies, Universitat Pompeu Fabra, Barcelona.
- 2009 – 2011 📌 **Computational Linguist.** Department of Learning Technologies, Universitat Oberta de Catalunya, Barcelona.
- 2008 – 2009 📌 **Postdoc, Lecturer.** Department of Signal Theory and Communications, Universitat Politècnica de Catalunya, Barcelona.
- 2004 – 2008 📌 **PhD Student.** Department of Signal Theory and Communications, Universitat Politècnica de Catalunya, Barcelona.
- 2002 – 2003 📌 **Researcher.** Research Group in Computational Linguistics (GilcUB), Universitat de Barcelona.
- 2001 – 2002 📌 **Researcher.** Research Centre in Artificial Intelligence (DFKI), Saarbrücken, Germany.
- 2000 – 2001 📌 **Scientific Coordinator.** Department of Computational Linguistics, Editorial Planeta-Actimedia, Barcelona.

Research Stays

- 2015 📌 **University of Edinburg, United Kingdom.** The Centre for Speech Technology Research (3 months).
- 2007 📌 **University of Canberra, Australia.** National Centre for Biometric Studies (6 months).
- 2005 – 2006 📌 **University of Umeå, Sweden.** Department of Philosophy and Linguistics (3 months).
- 2001 – 2002 📌 **Saarland University, Germany.** German Research Centre for Artificial Intelligence (6 months).

Research Projects

CONNEXIONS	■ Interconnected Next-Generation Immersive IoT Platform of Crime and Terrorism Detection, Prediction, Investigation, and Prevention Services (2018 – 2021). H2020-SEC-2016-2017-2.
COPD-MOBILE EMPOC	■ A new technological ecosystem based on COPD patient experience (2018 – 2018).
NYMPHA-MD	■ Next Generation Mobile Platforms for Health, in Mental Disorders (2016 – 2017).
KRISTINA	■ A Knowledge-based Information Agent with Social Competence and Human Interaction Capabilities (2015 – 2018). H2020-LEIT-ICT.
Tecnologia Educativa	■ Prevaluació de les proves d'avaluació continuada (2010 – 2011). Universitat Oberta de Catalunya. ■ Introducció d'àrees temàtiques al traductor automàtic Apertium (2010 – 2011). Universitat Oberta de Catalunya. ■ Avaluació automàtica de tests de preguntes obertes (2010 – 2011). Universitat Oberta de Catalunya.
TECNOPARLA	■ Tecnologies de la parla en català (2007 – 2009). Generalitat de Catalunya.
AVIVAVOZ	■ Tecnologías para la traducción de voz: reconocimiento, traducción estadística basad en corpus y síntesis (2006 – 2009). Ministerio de Educación y Ciencia. TEC2006-13694-C03.
Thinking Head	■ From Talking to Thinking Heads: The Thinking Head project (2006 – 2010). Australian Research Council/National Health & Medical Research Council, Australia.
Imitated Voices	■ A research project with application to the law and security (2003 – 2006). Riksbankens Jubileumsfond, Sweden.
BIOSEC	■ Biometrics and Security (2003 – 2005). FP6-IST-101890.
CHIL	■ Computer Human Interaction Loop (2003 – 2006). FP6-IST-71196.
IMAGINE	■ Interfacing Mobile Applications with voice natural language interactivity (2002 – 2003). FP5-IST-2000-29490.
PEKING	■ People and Knowledge Cross Lingual Information Gathering (2001 – 2002). FP5-IST-2000-25338.
ISLE	■ E-Mail Access through the Telephone Using Speech Technology Resources (2000 – 2002). FP5-IST-1999-10647.
E-MATTER	■ E-Mail Access through the Telephone Using Speech Technology Resources (2000 – 2002). FP5-IST-1999-21042.
MUMIS	■ Multimedia Indexing and Searching Environment (2000 – 2002). FP5-IST-EU, IST-1999-10651.
COLLATE	■ Computational Linguistics and Language Technology for Real Life Applications (2001 – 2005). Federal Ministry of Education and Research, Germany.

Directed PhD Theses

- 2017 **■** **Mónica Domínguez Bajo.** *Information Structure - Prosody Interface: On the role of hierarchical thematicity in an empirically-grounded model*, Department of Information and Communication Technologies, Universitat Pompeu Fabra, Barcelona (Co-directed with Leo Wanner).

Directed MSc Theses

- 2018 **■** **Jordi Selva Vinagre.** *Anti-theft*, Universitat Pompeu Fabra & Telefónica I + D.
- **Iryna Tanayan.** *The role of prosody in speech-to-speech translation*, Universitat Pompeu Fabra & Telefónica I + D.
- 2015 **■** **Laura Pérez Mayos.** *Co-speech gesture generation for the humanoid robot REEM-C*, Universitat Pompeu Fabra & PAL Robotics.
- 2014 **■** **Joan Pere Sánchez Pellicer.** *Improvement of speech synthesis through emotional pitch markers*, Universitat Pompeu Fabra.

Teaching

- Internat. Schools** **■** *The Role of linguistics in Statistical Machine Translation.* European Summer School in Logic, Language and Information (ESSLI 2013), Düsseldorf, Germany.
- Master & Doctoral** **■** *Natural Language Interaction*, Universitat Pompeu Fabra — *Speech and Language Technologies and Applications*, Universitat Politècnica de Catalunya.
- Undergraduate** **■** *Speech Processing • Modeling Social Interaction 2.0 • Waves and Electromagnetism • Linear Algebra and Discrete Mathematics • Optical Engineering • Intelligent Computing and Natural Language • Computational Logic*, Universitat Pompeu Fabra.
- *Technoethics • Technology and Society • Engineering and Social Responsibility: Cases Study*, Universitat Politècnica de Catalunya.

Miscellaneous Experience

Institutional Responsibilities

- 2014 — **■** Coordinator of the Master in Intelligent Interactive Systems. Universitat Pompeu Fabra.
- Member of the Postgraduate and Doctorate Academic Commission. Universitat Pompeu Fabra.

Awards and Achievements

- 2017 – 2022 **■** **Ramón y Cajal fellowship**, Spanish Ministry.
- 2014 – 2017 **■** **Juan de la Cierva fellowship**, Spanish Ministry.
- 2014 **■** **José Castillejo mobility grant**, Spanish Ministry.

Miscellaneous Experience (continued)

- 2009 **■ Best demo paper award**, I Iberian SLTech, Porto Salvo, Portugal.
- 2005 & 2007 **■ FPU mobility grants**, Spanish Ministry.
- 2004 – 2008 **■ FPU grant**, Spanish Ministry.
- 2004 – 2006 **■ National Awards from the Generalitat de Catalunya**: Internet (2004), Culture (2005), and Music (2006).









Quality Academic Accreditations







- 2014 **■ Professor Agregat**, AQU.
- 2013 **■ Profesor Contratado Doctor**, ANECA.
- 2011 **■ Profesor Ayudante Lector**, ANECA.
- 2009 **■ Professor Lector**, AQU.

Research Publications

4 journals in Q1 – 1 in Q2 – 3 in Q3 – 4 in Q4

Journal Articles

- 1 **Farrús, M.** (2018). Voice disguise in automatic speaker recognition. *ACM Computing Surveys*, 51(4), 68:1–68:22.  <https://dl.acm.org/citation.cfm?id=3195832>
- 2 Basart, J. M., **Farrús, M.**, & Serra, M. (2015). New ethical challenges for today engineering and technology. *Telematics and Informatics*, 32(2), 409–415.  <https://repositori.upf.edu/handle/10230/27645>
- 3 Costa-jussà, M. R. & **Farrús, M.** (2014). Statistical machine translatin enhancements through linguistic levels: A survey. *ACM Computing Surveys*, 46(3), 409–415.  <http://dl.acm.org/citation.cfm?id=2518130>
- 4 Costa-jussà, M. R., Poch, M., Fonollosa, J. A. R., **Farrús, M.**, & Mariño, J. B. (2014). A large Spanish-Catalan parallel corpus release for machine translation. *Computing and Informatics*, 33(4), 907–920.  <https://cai.type.sk/content/2014/4/a-large-spanish-catalan-parallel-corpus-release-for-machine-translation/>
- 5 Costa-jussà, M. R. & **Farrús, M.** (2013). Towards human linguistic machine translation evaluation. *Literary and Linguistic Computing*, 28(4).  <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.683.2933&rep=rep1&type=pdf>
- 6 Costa-jussà, M. R., **Farrús, M.**, Mariño, J. B., & J.A.R. Fonollosa. (2013). Study and comparison of rule-based and statistical Catalan-Spanish machine translation systems. *Computing and Informatics*, 31(2), 245–270.  <http://www.cai.sk/ojs/index.php/cai/article/view/940/430>
- 7 **Farrús, M.** & Costa-jussà, M. R. (2013). Automatic evaluation for e-learning using latent semantic analysis: A use case. *The International Review of Research in Open and Distance Learning*, 14(1).  <http://www.irrodl.org/index.php/irrodl/article/view/1389>
- 8 **Farrús, M.**, Costa-jussà, M. R., & Popović, M. (2012). Study and correlation analysis of linguistic, perceptual and automatic machine translation evaluations. *Journal of the American Society for Information Science and Technology*, 63(1), 174–184.  <http://dx.doi.org/10.1002/asi.21674>

- 9 **Farrús, M.** (2011). La prosòdia com a identificador biomètric. *Llengua, Societat i Comunicació*, 42–48. 
http://www.ub.edu/cusc/revista/lsc/hemeroteca/numero9/articles/6_MFarrus_lingforense_LSC-DEF.pdf
- 10 **Farrús, M.**, Costa-jussà, M. R., Mariño, J. B., Poch, M., Hernández, A., Henríquez, C., & Fonollosa, J. A. R. (2011). Overcoming statistical machine translation limitations: error analysis and proposed solutions for the Catalan-Spanish language pair. *Language Resources and Evaluation*, 45, 181–208. 
http://upcommons.upc.edu/bitstream/handle/2117/12676/Mireia2011_LRE.pdf
- 11 **Farrús, M.**, Noguera, I., Santanach, F., Moré, J., López, C., & Appel, C. (2011). L'ensenyament universitari del segle XXI: més enllà del paper. *Ítem*, 55, 33–47. 
<http://www.raco.cat/index.php/Item/article/view/259704/350902>
- 12 **Farrús, M.**, Wagner, M., Erro, D., & Hernando, J. (2010). Automatic speaker recognition as a measurement of voice imitation and conversion. *The International Journal of Speech, Language and the Law*, 16(2), 119–142.  <http://upcommons.upc.edu/bitstream/handle/2117/8168/IJSLImitations.pdf?sequence=1>
- 13 **Farrús, M.** (2009). Fusing prosodic and acoustic information for speaker recognition. *The International Journal of Speech, Language and the Law*, 16(1), 169–171. 
<https://journals.equinoxpub.com/index.php/IJSLI/article/view/6329>
- 14 **Farrús, M.** & Hernando, J. (2009). Using jitter and shimmer in speaker verification. *IET Signal Processing – Special Issue on Biometric Recognition*, 3(4), 247–257. 
<http://upcommons.upc.edu/bitstream/handle/2117/7960/25.pdf>

Conference Proceedings

- 1 Domínguez, M., Burga, A., **Farrús, M.**, & Wanner, L. (2018). On the role of communicative structure in read aloud applications for elderly. In *Proceedings of the Workshop on Intelligent Conversation Agents and Geriatric Care Applications AAMAS (International Conference on Autonomous Agents and Multiagent Systems)*. Stockholm, Sweden.
- 2 Domínguez, M., **Farrús, M.**, & Wanner, L. (2018). Thematicity-based prosody enrichment for text-to-speech applications. In *Proceedings of the Speech Prosody Conference*. Poznań, Poland.
- 3 Öktem, A., **Farrús, M.**, & Bonafonte, A. (2018). Visualizing punctuation restoration in speech transcripts with prosograph. In *Proceedings of interspeech*. Hyderabad, India.
- 4 Peiró-Lilja, À. & **Farrús, M.** (2018). Paragraph prosodic patterns to enhance text-to-speech naturalness. In *Proceedings of the Speech Prosody Conference*. Poznań, Poland.
- 5 Domínguez-Bajo, M., **Farrús, M.**, & Wanner, L. (2017). A thematicity-based prosody enrichment tool for CTS. In *Proceedings of Interspeech*. Stockholm, Sweden.
- 6 Kleinhans, J., **Farrús, M.**, Gravano, A., Pérez, J. M., Lai, C., & Wanner, L. (2017). Using prosody to classify discourse relations. In *Proceedings of Interspeech*. Stockholm, Sweden.
- 7 Öktem, A., **Farrús, M.**, & Wanner, L. (2017a, August). Attentional parallel RNNs for generating punctuation in transcribed speech. In *Proceedings of the 5th International Conference on Statistical Language and Speech Processing (SLSP 2017)*. Le Mans, France.
- 8 Öktem, A., **Farrús, M.**, & Wanner, L. (2017b). Automatic extraction of parallel speech corpora from dubbed movies. In *Proceedings of 10th ACL Workshop on Building and Using Comparable Corpora (BUCC 2017)*. Vancouver, Canada.

- 9 Öktem, A., **Farrús, M.**, & Wanner, L. (2017c). Prosograph: A tool for prosody visualisation of large speech corpora. In *Proceedings of Interspeech*. Stockholm, Sweden.
- 10 Wanner, L., André, E., Blat, J., Dasiopoulou, S., **Farrús, M.**, Fraga, T., ... Vrochidis, S. (2017a, October). Design of a knowledge-based agent as a social companion. In *Proceedings of the International Conference on Health and Social Care Information Systems and Technologies (HCIST 2017)*. Barcelona, Catalonia.
- 11 Wanner, L., André, E., Blat, J., Dasiopoulou, S., **Farrús, M.**, Fraga, T., ... Vrochidis, S. (2017b). KRISTINA: A knowledge-based virtual conversation agent. In *Proceedings of the International Conference on Practical Applications of Agents and Multi-Agent Systems (PAAMS 2017)*. Porto, Portugal.
- 12 Barceló, M., Basart, J. M., **Farrús, M.**, Florensa, A., Mariño, J. B., Nadeu, C., & Serra, M. (2016). Learning engineering without avoiding the *what for* question. In *Proceedings of the 1st HEIRRI Conference*. Barcelona, Catalonia.
- 13 Domínguez, M., **Farrús, M.**, Burga, A., & Wanner, L. (2016). Using hierarchical information structure for prosody prediction in content-to-speech applications. In *Proceedings of the 8th Speech Prosody Conference*. Boston, MA.
- 14 Domínguez, M., **Farrús, M.**, & Wanner, L. (2016a). An automatic prosody tagger for spontaneous speech. In *Proceedings of the 25th International Conference on Computational Linguistics (COLING 2016)* (pp. 377–386). Osaka, Japan.
- 15 Domínguez, M., **Farrús, M.**, & Wanner, L. (2016b). Combining acoustic and linguistic features in phrase-oriented prosody prediction. In *Proceedings of the 8th Speech Prosody Conference*. Boston, MA.
- 16 Domínguez, M., Latorre, I., **Farrús, M.**, Codina-Filbà, J., & Wanner, L. (2016). Praat on the Web: An upgrade of Praat for semi-automatic speech annotation. In *Proceedings of the 25th International Conference on Computational Linguistics (COLING 2016)* (pp. 218–222). Osaka, Japan.
- 17 **Farrús, M.**, Lai, C., & Moore, J. D. (2016). Paragraph-based prosodic cues for speech synthesis applications. In *Proceedings of the 8th Speech Prosody Conference*. Boston, MA.
- 18 **Farrús, M.**, Serra, M., Basart, J. M., & Nadeu, C. (2016). Baixant de la tarima. Una experiència a l'aula on l'alumne pren la paraula. In *Actes del Congrés Internacional de Docència Universitària i Innovació (CIDUI 2016)*. Bellaterra, Catalonia.
- 19 Lai, C., **Farrús, M.**, & Moore, J. D. (2016). Automatic paragraph segmentation with lexical and prosodic features. In *Proceedings of the Interspeech*. San Francisco, CA.
- 20 Domínguez, M., **Farrús, M.**, Burga, A., & Wanner, L. (2014a). The information structure-prosody language interface revisited. In *Proceedings of the 7th Speech Prosody Conference*. Dublin, Ireland.
- 21 Domínguez, M., **Farrús, M.**, Burga, A., & Wanner, L. (2014b). Towards automatic extraction of prosodic patterns for speech synthesis. In *Proceedings of the 7th Speech Prosody Conference*. Dublin, Ireland.
- 22 Costa-jussà, M. R., **Farrús, M.**, & Serrano-Pons, J. (2012). Machine translation in medicine. a quality analysis of statistical machine translation in the medical domain. In *Proceedings of the 1st Virtual International Conference on Advanced Research in Scientific areas (ARSA 2012)*. Slovakia.
- 23 Vié, A., Villarejo, L., O'Reagan, J., & **Farrús, M.** (2011). Apertium advanced web interface: a first step towards interactivity and language tools convergence. In *Proceedings of the*

International Workshop on Free/Open-Source Rule-Based Machine Translation (pp. 45–51). Barcelona, Catalonia.

- 24 Costa-jussà, M. R., **Farrús, M.**, Mariño, J. B., & Fonollosa, J. A. R. (2010). Automatic and human evaluation study of a rule-based and a statistical catalan-spanish machine translation systems. In *Proceedings of the 7th International Conference on Language Resources and Evaluation (LREC 2010)*. Malta.
- 25 **Farrús, M.**, Costa-jussà, M. R., Cobo, G., Garcia, D., Villarejo, L., & Banchs, R. E. (2010). Automatic evaluation of continuous assessment tests. In *Proceedings of the 6th ICTATLL International Conference* (pp. 173–180). Kyoto, Japan.
- 26 **Farrús, M.**, Costa-jussà, M. R., Mariño, J. B., & Fonollosa, J. A. R. (2010). Linguistic-based evaluation criteria to identify statistical machine translation errors. In *Proceedings of the 14th Annual Conference of the European Association for Machine Translation (EAMT 2010)* (pp. 167–173). Saint-Raphael, France.
- 27 Villarejo, L., **Farrús, M.**, Ortiz, S., & Ramírez, G. (2010). A web-based translation service at the uoc based on Apertium. In *Proceedings of the International Multiconference on Computer Science and Information Tehcnology (IMCSIT 2010)* (pp. 530–535). Wisla, Poland.
- 28 **Farrús, M.**, Costa-jussà, M. R., Poch, M., Hernández, A., & Mariño, J. B. (2009). Improving a Catalan-Spanish statistical translation system using morphosyntactic knowledge. In *Proceedings of the 13th Annual Conference of the European Association for Machine Translation (EAMT 2013)* (pp. 52–57). Barcelona, Catalonia.
- 29 **Farrús, M.**, Iglesias, G., Henríquez, C., Poch, M., Muñoz, R., Ezeiza, N., ... Mariño, J. B. (2009). An experience on statistical machine translation between Spanish and the regional languages of Spain. In *Proceedings of the 4th Language and Technology Conference*. Poznan, Poland.
- 30 Poch, M., **Farrús, M.**, Costa-jussà, M. R., Mariño, J. B., Hernández, A., Henríquez, C., & Fonollosa, J. A. R. (2009). TALP on-line Spanish-Catalan machine-translation system. In *Proceedings of the Iberian SLTech 2009*. Best demo paper award. Porto Salvo, Portugal.
- 31 Costa-jussà, M. R., **Farrús, M.**, Poch, M., Hernández, A., & Mariño, J. B. (2008). N-II: Traductor automático estadístico basado en N-gramas. In *Actas de las V Jornadas en Tecnología del Habla*. Bilbao, Spain.
- 32 **Farrús, M.**, Erro, D., & Hernando, J. (2008). Speaker recognition robustness to voice conversion. In *Actas de las V Jornadas de Reconocimiento Biométrico de Personas*. Valladolid, Spain.
- 33 **Farrús, M.**, Wagner, M., Anguita, J., & Hernando, J. (2008a). How vulnerable are prosodic features to professional imitators? In *Proceedings of the Odyssey – The Speaker and Language Recognition Workshop*. Stellenbosch, South-Africa.
- 34 **Farrús, M.**, Wagner, M., Anguita, J., & Hernando, J. (2008b). Robustness of prosodic features to voice imitation. In *Proceedings of the International Conference on Spoken Language Processing (ICSLP – Interspeech)*. Brisbane, Australia.
- 35 Nadeu, C., Mariño, J. B., & **Farrús, M.** (2008). Learning engineering ethics by debate. In *Proceedings of the I International Conference on Ethics and Human Values in Engineering*. Barcelona, Catalonia.
- 36 **Farrús, M.**, Ejarque, P., Temko, A., & Hernando, J. (2007). Histogram equalization in SVM multimodal person verification. In *Proceedings of the IEEE International Conference on Biometrics – Lecture Notes in Computer Science* (Vol. 4642, pp. 819–827). Seoul, Korea.

- 37 **Farrús, M.**, Eriksson, E., Sullivan, K. P. H., & Hernando, J. (2007). Speaker recognition and accents. In *Femte Svenska Lingvistikkonferensen*. Umeå, Sweden.
- 38 **Farrús, M.**, Hernando, J., & Ejarque, P. (2007). Jitter and shimmer measurements for speaker recognition. In *Proceedings of the Interspeech – Eurospeech* (pp. 778–781). Antwerp, Belgium.
- 39 Nadeu, C., Mariño, J. B., & **Farrús, M.** (2007). Engineering and social responsibility: a case-based course. In *Proceedings of the III International Conference on Technoethics*. (Online Conference).
- 40 **Farrús, M.**, Eriksson, E., Sullivan, K. P. H., & Hernando, J. (2006). Dialect imitations in speaker recognition. In *Proceedings of the European IAFL Conference on Forensic Linguistics, Language and the Law* (pp. 347–354). Barcelona, Catalonia.
- 41 **Farrús, M.**, Garde, A., Ejarque, P., Luque, J., & Hernando, J. (2006). On the fusion of prosody, voice spectrum and face features for multimodal person verification. In *Proceedings of the International Conference on Spoken Language Processing (ICSLP – Interspeech)* (pp. 2106–2109). Pittsburgh, PA.
- 42 Hernando, J., **Farrús, M.**, Ejarque, P., & Garde, A. (2006). Person verification by fusion of prosodic, voice spectral and facial parameters. In *Proceedings of the International Conference on Security and Cryptography (SECRYPT)* (pp. 17–23). Setúbal, Portugal.
- 43 Luque, J., Morros, R., Anguita, J., **Farrús, M.**, Macho, D., Marquès, F., ... Hernando, J. (2006). Multimodal person identification in a smart room. In *Actas de las IV Jornadas en Tecnología del Habla* (pp. 327–331). Zaragoza, Spain.
- 44 Luque, J., Morros, R., Garde, A., Anguita, J., **Farrús, M.**, Macho, D., ... Hernando, J. (2006). Audio, video and multimodal person identification in a smart room. In *CLEAR Workshop – Lecture Notes in Computer Science* (Vol. 4122, pp. 258–269). Southampton, United Kingdom.
- 45 Cerdà, R., **Farrús, M.**, Hernando, J., & Veyrat, M. (2005). Un experimento sobre la noción de campo de dispersión fonológica. In *Actas del III Congreso de la Sociedad Española de Acústica Forense*. Santiago de Compostela, Spain.
- 46 **Farrús, M.**, Anguita, J., Hernando, J., & Cerdà, R. (2005). Fusión de sistemas de reconocimiento basados en características de alto y bajo nivel. In *Actas del III Congreso de la Sociedad Española de Acústica Forense*. Santiago de Compostela, Spain.
- 47 Anguera, X., **Farrús, M.**, & Hernando, J. (2004). Segmentació de locutor per a la indexació automàtica de bases de dades multimèdia en català. In *Actes del II Congrés d'Enginyeria en Llengua Catalana*. Andorra la Vella, Andorra.
- 48 **Farrús, M.**, Anguita, J., Anguera, X., Grego, J. M., de Gispert, A., Hernando, J., & Nadeu, C. (2004). Els sistemes de reconeixement de veu i traducció automàtica en català: present i futur. In *Actes del II Congrés d'Enginyeria en Llengua Catalana*. Andorra la Vella, Andorra.
- 49 Cassan, A., Cervell, S., Colom, M., **Farrús, M.**, González, I., Marín, R., & Trotzig, D. (2001). El uso editorial de herramientas lingüísticas: un ejemplo con los descriptores humanos. In *Revista de la sociedad española para el procesamiento del lenguaje natural* (Vol. 27, pp. 317–318). Jaén, Spain.

Books and Chapters

- 1 Duran, J., Villarejo, L., **Farrús, M.**, Ortiz, S., & Ramírez, G. (2013). Incorporating subject areas into the apterium machine translation system. In A. Przepiórkowski, M. Piasecki, K.

Jassem, & P. Fuglewicz (Eds.), *Computational linguistics* (pp. 281–292). Berlin – Heidelberg: Springer.

- 2 **Farrús, M.** (2010). *Prosody in automatic speaker recognition*. Saarbrücken, Germany: VDM.
- 3 Cerdà, R., **Farrús, M.**, & Hernando, J. (2005). Hacia una sinergia metodológica en la identificación de locutores. In *Filología y lingüística: Estudios ofrecidos a Antonio Quilis* (Vol. 2, pp. 1515–1528). Madrid: Consejo Superior de Investigaciones Científicas.