

# Francesca Grasso

## Contact Information:

**Address:** Corso Svizzera 185, Turin, Italy

**Phone:** (+39) 347\*\*\*\*\*

**Email:** [fr.grasso@unito.it](mailto:fr.grasso@unito.it)

**Nationality:** Italian

**Website:** [https://www.cs.unito.it/do/docenti.pl/Show?\\_id=frangras#tab-profilo](https://www.cs.unito.it/do/docenti.pl/Show?_id=frangras#tab-profilo)

## Education:

- [2022-Present] **Ph.D. in Computer Science**, University of Turin, Italy  
*Advisor:* Prof. Luigi Di Caro
- [2016-2020] **Master of Arts (MA) in Linguistics**, University of Turin, Italy  
*Thesis Title:* "Jah hlaiwasnos usluknodedun. Valence change in germanic languages from a diachronic and synchronic perspective."  
*Final Grade:* 110/110 cum laude
- [2018] **ERASMUS+ for studies**, Masterstudiengang Sprachwissenschaft, University of Münster (WWU), Germany  
*Topics:* Germanistik, Sprachwissenschaft
- [2012-2016] **Bachelor of Arts (BA) in Foreign Languages and Literatures**, University of Turin, Italy

## Doctoral Project:

*Title:* Encoding and Ecocriticism of Ecological Discourse. Development of a Multilingual Computational Model for the Extraction, Comparison, and Evaluation of Semantic Information in Green Dialogue.

*Objective:* Develop an automatic system for detecting attitudes harmful or beneficial to sustainability and ecological well-being.

*Collaboration:*

Collaborative partnership with Almaxwave, a company specializing in NLP techniques, to investigate corporate communication and identify unsustainable business practices.

## Research Interests:

- Domain-specific training of Language Models on environmental and climate change topics;
- Multilingual knowledge modeling (focus on lexical semantics);
- Users' mental model of conversational agents;
- Hate speech detection with a focus on body shaming.

## Publications:

- **Grasso, F.**, Lovera Rulfi, V., Di Caro, L. (2022). MultiAlignNet: Cross-lingual Knowledge Bridges Between Words and Senses. In: Corcho, O., Hollink, L., Kutz, O., Troquard, N., Ekaputra, F.J. (eds) Knowledge Engineering and Knowledge Management. EKAW 2022.
- **Grasso, F.** and Di Caro, L. (2021). A methodology for large-scale, disambiguated, and unbiased lexical knowledge acquisition based on multilingual word alignment. In Elisabetta Fersini, et al., editors, Proceedings of the Eighth Italian Conference on Computational Linguistics, CLiC-it 2021.

### *Papers under review:*

- **Grasso, F.**, Lovera Rulfi, V., Di Caro, L. (2023). VerbAlignNet: Unlocking Multilingual Exploration of Verbal Arguments.
- **Grasso, F.**, Di Caro L. (under minor revision). Towards Cross-lingual Representation of Prototypical Lexical Knowledge. In IJCoL. Italian Journal of Computational Linguistics.
- Alloatti, F., **Grasso, F.**, Ferrod R., Siragusa G., Di Caro L., Cena F. (under minor revision). A Tag-based Methodology for the Detection of User Repair Strategies in Task-Oriented Conversational Agents. In Computer Speech & Language.

### *Editorial Contributions:*

- Symeonidou, D., Yu, R., Ceolin, D., Poveda-Villalón, M., Audrito, D., Di Caro, L., **Grasso, F.**, Nai, R., Sulis, E., Ekaputra F., Kutz, O. & Troquard, N. (2022). EKAW-C 2022: Companion Proceedings of the 23rd International Conference on Knowledge Engineering and Knowledge Management, Bozen-Bolzano, Italy, September 26-29, 2022.

## Awards and Honors:

- **Best Paper Award** at EKAW 2022 - 23rd International Conference on Knowledge Engineering and Knowledge Management - Sep 2022 - Recognized for our publication titled "MultiAlignNet: Cross-lingual Knowledge Bridges Between Words and Senses" (Grasso, Lovera Rulfi & Di Caro 2022)

## Conference Organization:

- Co-organized and chaired the first edition of the **International Workshop Knowledge Management and Process Mining for Law (KM4Law)** at the International Conference EKAW 2022 and the second edition of KM4Law at International Conference FOIS 2023.
- Co-organizing the 1st edition of the **International Workshop on Biased Data in Conversational Agents** at the European Conference ECML PKDD 2023.

## Conference Presentations and Attendance:

- International Conference on Knowledge Engineering and Knowledge Management (EKAW) (Bozen, Italy; September 2022)
- International Conference on Ecolinguistics (Graz, Austria; September 2022)
- Italian Conference on Computational Linguistics (Milan, Italy; June 2022)

### Academic Affiliations:

- Social Computing Research Group (Member), University of Turin;
- Computer Science Department Board (Ph.D. student representative), University of Turin;
- Ph.D. Committee (Computer Science Ph.D. student representative), University of Turin;
- Bridges Project – “Building reflexivity and response-ability involving different narratives of knowledge and science” (Young Researcher), CNR-Irea, Milan

### Work Experience:

- [Sept 2020 – Dec 2021] **Postgraduate Researcher**, University of Turin - Department of Computer Science, Italy

Academic research activities within the following projects:

- "Analysis and annotation of dialogues for the application of Natural Language Processing methods in conversational agents."
- "Analysis and annotation of texts for the application of Natural Language Processing methods."

Tasks performed:

- Annotation of dialogues with conversational agents (chatbots);
  - Analysis and support in research in the field of HCI (Human Computer Interaction): modelling human-machine interaction, user mental models;
  - Lexical-semantic analysis of textual data; development of knowledge models.
  - Support for automatic approaches to information processing (lexical semantics);
- [Jan 2019 - Dec 2020] **Computational Linguist**, CELI - Language Technology, Turin, Italy  
During my time as a Computational Linguist at CELI, I focused on the development and implementation of NLP (Natural Language Processing) techniques for the design of Conversational Agents and automatic transcription technologies. My tasks included:
    - Language data manipulation in the Italian language, involving data cleaning, data entry, and transcriptions.
    - Language data manipulation in the German language, including the generation of grammars and data cleaning on generated grammars for the development of conversational systems.
  - [Sep 2017 - Nov 2017] **Linguistic Consultant**, CELI - Language Technology, Turin, Italy  
As a Linguistic Consultant at CELI, I worked on the application and implementation of tools and techniques for the design and development of NLP complex systems. Specifically, I focused on language data manipulation applied to Italian automotive domain corpora. My tasks included:
    - Data annotation, cleaning, manipulation, and entry in Italian automotive domain corpora.
    - Part-of-speech tagging and linguistic analysis of the data.

### Language competences:

- Italian: Native proficiency
- English: Fluent (C1 Level)
- German: Fluent (C1 Level)