Lorenzo Proietti

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EDUCATION

Ph.D. in Artificial Intelligence *Nov. 2022 - Jan. 2026*
Sapienza University of Rome

- Topic: Natural Language Processing.
- Advisor: Prof. Roberto Navigli.
- Research group: Sapienza NLP.

M.Sc in Engineering in Computer Science *Sept. 2019 - Jan. 2022*
Sapienza University of Rome

- Final grade: 110/110 cum laude.
- Average exam grade: 29.53/30.

Bachelor's degree in Computer and System Engineering *Sept. 2016 - Oct. 2019*
Sapienza University of Rome

- Final grade: 110/110 cum laude.
- Average exam grade: 29.51/30.

PUBLICATIONS

- **Lorenzo Proietti**, Roman Grundkiewicz, and Matt Post. 2026. **PEAR: Pairwise Evaluation for Automatic Relative Scoring in Machine Translation**. To appear in Proceedings of the 64th Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers), San Diego, CA, USA. Association for Computational Linguistics. arXiv:2601.18006.
- **Lorenzo Proietti**. 2026. **Towards Better Measurement of Progress in Machine Translation: Evaluation and Meta-Evaluation**. Ph.D. thesis, Sapienza University of Rome. UNITESI.
- **Lorenzo Proietti***, Stefano Perrella*, Vilém Zouhar*, Roberto Navigli, and Tom Kocmi. 2025. **Estimating Machine Translation Difficulty**. In Findings of the Association for Computational Linguistics: EMNLP 2025, pages 24261–24285, Suzhou, China. Association for Computational Linguistics.
- **Lorenzo Proietti***, Stefano Perrella*, and Roberto Navigli. 2025. **Has Machine Translation Evaluation Achieved Human Parity? The Human Reference and the Limits of Progress**. In Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics (Volume 2: Short Papers), Vienna, Austria. Association for Computational Linguistics.
- Tom Kocmi, Ekaterina Artemova, Eleftherios Avramidis, Rachel Bawden, Ondřej Bojar, Konstantin Dranch, Anton Dvorkovich, Sergey Dukanov, Mark Fishel, Markus Freitag, Thamme Gowda, Roman Grundkiewicz, Barry Haddow, Marzena Karpinska, Philipp Koehn, Howard Lakougna, Jessica Lundin, Christof Monz, Kenton Murray, Masaaki Nagata, Stefano Perrella, **Lorenzo Proietti**, Martin Popel, Maja Popović, Parker Riley, Mariya Shmatova, Steinþór Steingrímsson, Lisa Yankovskaya, Vilém Zouhar. 2025. **Findings of the WMT25 General Machine Translation Shared Task: Time to Stop Evaluating on Easy Test Sets**. In Proceedings of the Tenth Conference on Machine Translation (WMT).
- Tom Kocmi, Ekaterina Artemova, Eleftherios Avramidis, Eleftheria Briakou, Pinzhen Chen, Marzieh Fadaee, Markus Freitag, Roman Grundkiewicz, Yupeng Hou, Philipp Koehn, Julia Kreutzer, Saab Mansour, Stefano Perrella, **Lorenzo Proietti**, Parker Riley, Eduardo Sánchez, Patrícia Schmidtová, Mariya Shmatova, Vilém Zouhar. 2025. **Findings of the WMT25 Multilingual Instruction**

Shared Task: Persistent Hurdles in Reasoning, Generation, and Evaluation. In Proceedings of the Tenth Conference on Machine Translation (WMT).

- Tom Kocmi, Eleftherios Avramidis, Rachel Bawden, Ondřej Bojar, Konstantin Dranch, Anton Dvorkovich, Sergey Dukanov, Natalia Fedorova, Mark Fishel, Markus Freitag, Thamme Gowda, Roman Grundkiewicz, Barry Haddow, Marzena Karpinska, Philipp Koehn, Howard Lakougna, Jessica Lundin, Kenton Murray, Masaaki Nagata, Stefano Perrella, **Lorenzo Proietti**, Martin Popel, Maja Popović, Parker Riley, Mariya Shmatova, Steinþór Steingrímsson, Lisa Yankovskaya, Vilém Zouhar. 2025. **Preliminary Ranking of WMT25 General Machine Translation Systems**. In arXiv:2508.14909.
- Stefano Perrella*, **Lorenzo Proietti***, Pere-Lluís Huguet Cabot, Edoardo Barba, and Roberto Navigli. 2024. **Beyond Correlation: Interpretable Evaluation of Machine Translation Metrics**. In Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing, Miami, Florida, USA. Association for Computational Linguistics.
- Stefano Perrella*, **Lorenzo Proietti***, Alessandro Scirè, Edoardo Barba, and Roberto Navigli. 2024. **Guardians of the Machine Translation Meta-Evaluation: Sentinel Metrics Fall In!** In Proceedings of the 62nd Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers), Bangkok, Thailand. Association for Computational Linguistics.
- **Lorenzo Proietti**, Stefano Perrella, Simone Tedeschi, Giulia Vulpis, Leonardo Lavalle, Andrea Sanchietti, Andrea Ferrari, and Roberto Navigli. 2024. **Analyzing Homonymy Disambiguation Capabilities of Pretrained Language Models**. In Proceedings of the 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024), Torino, Italia. ELRA and ICCL.
- Stefano Perrella, **Lorenzo Proietti**, Alessandro Scirè, Niccolò Campolungo, and Roberto Navigli. 2022. **MaTESe: Machine Translation Evaluation as a Sequence Tagging Problem**. In Proceedings of the Seventh Conference on Machine Translation (WMT), Abu Dhabi, United Arab Emirates (Hybrid). Association for Computational Linguistics.

Authors marked with an asterisk (*) contributed equally to the work.

EXPERIENCE

Amazon Applied Scientist Intern *Dec. 2025 – May 2026*
Paris, France

- Team: **EU INTech**.
- Focus: **Process Reward Modeling for Tool Calling**.
- Manager: Bruno Charron.

Microsoft Research Intern *Jul. 2025 – Sept. 2025*
Redmond, Washington, U.S.

- Team: **Microsoft Translator Research**.
- Focus: **Machine Translation Evaluation**.
- Manager: Roman Grundkiewicz and Matt Post.

WMT General MT Shared Task Organizer *Feb. 2025 - Present*
Conference on Machine Translation (WMT)

- Shared Task: General Machine Translation.
- My Focus: **Sampling challenging source documents for LLM translation**.
- Objective: Enhance the test set's capacity **to reveal performance differences among models**.

WMT Automated Translation Quality Shared Task Organizer *Feb. 2026 - Present*
Conference on Machine Translation (WMT)

- Shared Task: Automated Translation Quality Evaluation Systems.
- My Focus: **Segment-Level Quality Score Prediction task co-lead**.
- Objective: Predict quality scores for **source–target translation segments**.

WMT25 Multilingual Instruction Shared Task Organizer *Feb. 2025 - Nov. 2025*
Conference on Machine Translation (WMT)

- Shared Task: Multilingual Instruction Shared Task.
- My Focus: **Linguistic Reasoning**.
- Objective: Probe LLMs for **reasoning on multilingual linguistic puzzles**.

Visiting Ph.D. Researcher *Jan. 2025 - Jun. 2025*
University of Amsterdam

- Focus: **Adapting LLMs to assess the quality of NLG tasks' outputs**.
- Supervisor: Prof. Raquel Fernández.
- Research group: Dialogue Modelling Group.

AWARDS

SAC Highlights Award *Aug. 2025*
ACL 2025

- **ACL award** received for the paper *Has Machine Translation Evaluation Achieved Human Parity?*

Honours Programme *July 2021 - Nov. 2021*
Sapienza University of Rome

- **Additional academic endeavor for selected students**.
- Focus: Exploring **Constrained Decoding in Autoregressive NLG models**.

TALKS

Towards More Informative MT Evaluation *Feb. 2026*
Meta FAIR, Paris

- Presentation: Slides.
- Team: **The Omnilingual MT Team**.

Has Machine Translation Evaluation Achieved Human Parity? *Aug. 2025*
Google

- Presentation: Slides.
- Team: **Multilinguality Reading Group**.

The Opacity in MT Evaluation and Meta-Evaluation *Dec. 2024*
Microsoft

- Presentation: Slides.
- Team: **Microsoft Translator Research**.

TECHNICAL SKILLS

Programming
Python • Java • Kotlin • C • Scala • Ruby

Frameworks
NLP: Huggingface Transformers • LangChain • vLLM • LLaMA-Factory • Unsloth
Machine Learning: PyTorch • PyTorch Lightning • TensorFlow • Keras • Scikit-learn
Data Science: Pandas • NumPy • PySpark

Containers & Job Orchestration
Docker • Singularity (Apptainer) • Amulet • Azure • AWS

High-Performance Computing (HPC)
Utilized **CINECA's Leonardo supercomputer** for conducting NLP research experiments, leveraging computational resources granted through a winning **ISCRA Class C project**, which provided access to 80,000 GPU hours.

LANGUAGES

Italian: Mother Tongue.
English: Fluent.