Fabrizio **Silvestri**

Full Professor of Artificial Intelligence

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ELLIS Fellow ORCID · Google Scholar · DBLP

PROFILE

Full Professor of Artificial Intelligence at Sapienza University of Rome, where I lead the RSTLess group (Robust, Safe, and Transparent Machine Learning) and coordinate the Ph.D. Programme in Data Science. Before Sapienza I spent eight years in industry, at Yahoo Labs, Facebook Search and Facebook (now Meta) AI, shipping production systems for sponsored search, query understanding and platform integrity. My research covers retrieval and retrieval-augmented generation, geometric and graph machine learning, and safety and content integrity.

More than 210 peer-reviewed publications, more than 80 at CORE A/A* conferences. h-index 52, over 10,500 citations (Google Scholar, November 2026). Eight granted US patents. Full list: https://fabsilvestri.github.io/#publications

POSITIONS

2021 – now	**Full Professor of AI**, Sapienza University of Rome. Head of RSTLess; Coordinator of the Ph.D. in Data Science.
2026 – now	**Consultant on Search Engineering**, You.Com.
2022 – now	**Research Associate**, ISTI-CNR.
2022 – 2023	**Consultant**, Spotify Technology S.A. (graph neural networks for search).
2019 – 2021	**Research Scientist**, Facebook AI, London. AI for integrity: misinformation and abusive accounts.
2016 – 2019	**Software Engineer**, Facebook Search, London. Query suggestions, Related Searches.
2013 – 2016	**Senior, then Principal Research Scientist**, Yahoo Labs, Barcelona and London. Gemini Sponsored Search.
2004 – 2013	**Postdoc, then Research Scientist**, ISTI-CNR, Pisa. Web search and query log mining.

EDUCATION

2004	**Ph.D. in Computer Science**, University of Pisa. Advisor: Raffaele Perego.
2000	**M.Sc. in Computer Science**, University of Pisa, magna cum laude.

AWARDS AND HONOURS

2026	ELLIS Fellow.
2025	Best Paper Award, HCAI Workshop at ACM CIKM 2025. SAC Highlights, ACL 2025.
2018	Test-of-Time Award, ECIR 2018, for “Sorting Out the Document Identifier Assignment Problem”.
2014	Best Paper Award, Yahoo Tech Pulse (internal Yahoo research conference).
2013	ACM Computing Reviews’ Notable Books and Articles.
2011	Honorable Mention (Best Paper Candidate), WSDM 2011. Yahoo! Faculty Research and Engagement Program.
2007	Best Paper Award, ECIR 2007.
2005	Finalist, ERCIM Cor Baayen Award (one of two representatives from Italy).
2004	Best Paper Award, IEEE/WIC/ACM Web Intelligence 2004.

SERVICE

Chair	General Chair, ECIR 2025. PC Chair, CIKM 2026 and WISE 2022; PC Co-Chair, ASONAM 2027 and ESSAI 2025. Track chair at TheWebConf 2018, 2022 and 2026; Industry Track Chair, ECML PKDD 2026.
Editorial	Action Editor, TMLR. Editorial boards: npj Artificial Intelligence, ACM TIST, Online Social Networks and Media, Social Network Analysis and Mining, Journal of the Franklin Institute.
Supervision	14 current Ph.D. students (7 as main supervisor, 7 co-supervised) and 2 postdocs. 17 former Ph.D. students, 12 of them at Sapienza.
Committees	PC, Senior PC and Area Chair at NeurIPS, ICML, ACL, AAAI, NAACL, TheWebConf, VLDB, IJCAI, SIGIR and CIKM.

FUNDING

PI	PRIN 2022 **NEREO** (Neural Reasoning over Open Data); **HUMANE** within the SERICS extended partnership (PNRR).
Participant	FAIR (PNRR), Future Artificial Intelligence Research; SoBigData research infrastructure.
Industry	Research contract with Huawei Technologies Italia on task unlearning in LLMs (fund holder).

SELECTED PUBLICATIONS

2026 **EACL** Giovanni Trappolini, Florin Cuconasu, Simone Filice, Yoelle Maarek, and **Fabrizio Silvestri**. 2026. Redefining Retrieval Evaluation in the Era of LLMs. In *Proceedings of the 19th Conference of the European Chapter of the Association for Computational Linguistics (Volume 1: Long Papers)* (EACL '26). Association for Computational Linguistics, 8359–8375. (oral)

ICLR Emanuele Mule, Stefano Fiorini, Antonio Purificato, Federico Siciliano, Stefano Coniglio, and **Fabrizio Silvestri**. 2026. Directional Sheaf Hypergraph Networks: Unifying Learning on Directed and Undirected Hypergraphs. In *The Fourteenth International Conference on Learning Representations* (ICLR '26). OpenReview.net.

2025 **NeurIPS** Valeria Ruscio, Umberto Nanni, and **Fabrizio Silvestri**. 2025. What Are You Sinking? A Geometric Approach on Attention Sink. In *Advances in Neural Information Processing Systems 38* (NeurIPS '25). Curran Associates, Inc., 136877–136916.

CVPR Antonio Andrea Gargiulo, Donato Crisostomi, Maria Sofia Bucarelli, Simone Scardapane, **Fabrizio Silvestri**, and Emanuele Rodolà. 2025. Task Singular Vectors: Reducing Task Interference in Model Merging. In *2025 IEEE/CVF Conference on Computer Vision and Pattern Recognition* (CVPR '25). IEEE, 18695–18705.

2024 **SIGIR** Florin Cuconasu, Giovanni Trappolini, Federico Siciliano, Simone Filice, Cesare Campagnano, Yoelle Maarek, Nicola Tonellotto, and **Fabrizio Silvestri**. 2024. The Power of Noise: Redefining Retrieval for RAG Systems. In *Proceedings of the 47th International ACM SIGIR Conference on Research and Development in Information Retrieval* (SIGIR '24). ACM, 719–729.

2023 **NeurIPS** Iulia Duta, Giulia Cassarà, **Fabrizio Silvestri**, and Pietro Liò. 2023. Sheaf Hypergraph Networks. In *Advances in Neural Information Processing Systems 36* (NeurIPS '23). Curran Associates, Inc., 12087–12099.

2022 **AISTATS** Ana Lucic, Maartje ter Hoeve, Gabriele Tolomei, Maarten de Rijke, and **Fabrizio Silvestri**. 2022. CF-GNNExplainer: Counterfactual Explanations for Graph Neural Networks. In *Proceedings of the 25th International Conference on Artificial Intelligence and Statistics* (AISTATS '22; Proceedings of Machine Learning Research, Vol. 151). PMLR, 4499–4511.

2017 **KDD** Gabriele Tolomei, **Fabrizio Silvestri**, Andrew Haines, and Mounia Lalmas. 2017. Interpretable Predictions of Tree-based Ensembles via Actionable Feature Tweaking. In *Proceedings of the 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD '17). ACM, 465–474.

2009 **FnTIR** **Fabrizio Silvestri**. 2009. Mining Query Logs: Turning Search Usage Data into Knowledge. *Foundations and Trends in Information Retrieval* 4, 1-2 (2009), 1–174.

2007 **SIGIR** Ricardo Baeza-Yates, Aristides Gionis, Flavio Junqueira, Vanessa Murdock, Vassilis Plachouras, and **Fabrizio Silvestri**. 2007. The Impact of Caching on Search Engines. In *Proceedings of the 30th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (SIGIR '07). ACM, 183–190.

ECIR **Fabrizio Silvestri**. 2007. Sorting Out the Document Identifier Assignment Problem. In *Advances in Information Retrieval* (ECIR '07; Lecture Notes in Computer Science). Springer, 101–112.
Best Paper Award **Test-of-Time Award 2018**