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Research interests

I develop and apply machine learning methodologies and computational tools for complex ecosystems with main focus on human and food microbiome studies. I have also worked on signal and image processing methods.

Current and past positions

Since 2018 Dec.	Ass. professor and Principal investigator , Data science and Metagenomics, Department of Agricultural Sciences, Univ. of Naples Federico II, Italy
2016 – 2018	Marie Skłodowska-Curie individual fellow , Centre for Integrative Biology, Univ. of Trento, Italy
2014 – 2016	Postdoctoral fellow , Centre for Integrative Biology, Univ. of Trento, Italy
2013 – 2014	Postdoctoral fellow , School of Civil Engineering, Purdue Univ., United States
2012 – 2013	Scientist , CISTO, NASA Goddard Space Flight Center, United States
2011 – 2012	Postdoctoral fellow , Department of Information Engineering and Comp. Science, Univ. of Trento, Italy

Education

2011 Nov.	Ph.D. in Information and Communication Technology , DISI, Univ. of Trento, Italy
2008 Mar.	Master's degree in Telecommunications Engineering , Univ. of Trento, 110/110 cum laude
2006 Jan.	Bachelor's degree in Telecommunications Engineering , Univ. of Trento, 110/110 cum laude

Selected publications

- D. Bazzani, [...], N. Segata*, **E. Pasolli***, P. Ghensi*. [Favorable subgingival plaque microbiome shifts are associated with clinical treatment for peri-implant diseases](#). *npj Biofilms and Microbiomes*, Feb. 2024.
- S. Manara, [...], **E. Pasolli***, M. C. Collado*, N. Segata*. [Maternal and food microbial sources shape the infant microbiome of a rural Ethiopian population](#). *Current Biology*, Apr. 2023.
- R. Giliberti, S. Cavaliere, I. E. Mauriello, D. Ercolini, **E. Pasolli**. [Host phenotype classification from human microbiome data is mainly driven by the presence of microbial taxa](#). *PLOS Computational Biology*, May 2022.
- A. Tett, **E. Pasolli**, G. Masetti, D. Ercolini, N. Segata. [Prevotella diversity, niches and interactions with the human host](#). *Nature Reviews Microbiology*, May 2021.
- S. Terrisse, [...], **E. Pasolli***, S. Delaloge*, L. Zitvogel*. [Intestinal microbiota influences clinical outcome and side effects of early breast cancer treatment](#). *Cell Death & Differentiation*, May 2021.
- **E. Pasolli** et al. [Large-scale genome-wide analysis links lactic acid bacteria from food with the gut microbiome](#). *Nature Communications*, 11, Dec. 2020.
- F. De Filippis*, **E. Pasolli***, D. Ercolini. [The food-gut axis: lactic acid bacteria and their link to food, the gut microbiome and human health](#). *FEMS Microbiology Reviews*, Jun. 2020.
- **E. Pasolli** et al. [Extensive unexplored human microbiome diversity revealed by over 150,000 genomes from metagenomes spanning age, geography, and lifestyle](#). *Cell*, 176:3, Jan. 2019.
- S. Manara*, **E. Pasolli***, D. Dolce* et al. [Whole-genome epidemiology, characterisation, and phylogenetic reconstruction of Staphylococcus aureus strains in a paediatric hospital](#). *Genome Medicine*, 10:82, Nov. 2018.
- **E. Pasolli***, L. Schiffer*, P. Manghi* et al. [Accessible, curated metagenomic data through ExperimentHub](#). *Nature Methods*, 14(11):1023-1024, Nov. 2017.
- F. Beghini*, **E. Pasolli*** et al. [Large-scale comparative metagenomics of Blastocystis, a common member of the human gut microbiome](#). *ISME Journal*, 11:2848-2863, Aug. 2017.
- **E. Pasolli** et al. [Machine learning meta-analysis of large metagenomic datasets: tools and biological insights](#). *PLOS Computational Biology*, 12(7):e1004977, Jul. 2016.
- M. Scholz*, D. W. Ward*, **E. Pasolli*** et al. [Strain-level microbial epidemiology and population genomics from shotgun metagenomics](#). *Nature Methods*, 13(5):435-438, May 2016.
- **E. Pasolli** et al. [SVM active learning approach for image classification using spatial information](#). *IEEE Transactions on Geoscience and Remote Sensing*, 52(4):2217-2233, Apr. 2014.
- **E. Pasolli** et al. [Automatic analysis of GPR images: a pattern-recognition approach](#). *IEEE Transactions on Geoscience and Remote Sensing*, 47(7):2206-2217, Jul. 2009.