

Curriculum Vitae

November 11th, 2021

Edoardo Pasolli

Tenure-track assistant professor (RTD-B)

Department of Agricultural Sciences

University of Naples Federico II

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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 microbiomes. I have also worked on signal and image processing for remote sensing data.

Current position

Since 2018 December **Tenure-track assistant professor (RTD-B)** and **Principal investigator**, Data science and Metagenomics, Department of Agricultural Sciences, University of Naples Federico II, Italy

Past positions

2016 – 2018 **Marie Skłodowska-Curie individual fellow**, Centre for Integrative Biology, University of Trento, Italy

2014 – 2016 **Postdoctoral fellow**, Centre for Integrative Biology, University of Trento, Italy

2013 – 2014 **Postdoctoral fellow**, School of Civil Engineering, Purdue University, United States

2012 – 2013 **Scientist**, Computational and Information Sciences and Technology Office, NASA Goddard Space Flight Center, United States

2011 – 2012 **Postdoctoral fellow**, Department of Information Engineering and Computer Science, University of Trento, Italy

Research visits

2010 (3 months) University of Colorado at Boulder, Department of Aerospace Engineering Sciences, United States

Education

2011 November **Ph.D. in Information and Communication Technology**, Department of Information Engineering and Computer Science, University of Trento, Italy

2008 March **Master's degree in Telecommunications Engineering**, Faculty of Engineering, University of Trento, Italy, *Grade 110/110 cum laude*

2006 January **Bachelor's degree in Telecommunications Engineering**, Faculty of Engineering, University of Trento, Italy, *Grade 110/110 cum laude*

Grants

2021 – 2023 **Research grant** (University of Naples Federico II – Italy; co-PI)

2019 – 2022 **Industrial Ph.D. research grant** (Campania Region – Italy; Scientific Advisor for the fellowship to Renato Giliberti)

2019 – 2022 **Ph.D. research grant** (Italian Ministry of Education, University and Research; Scientific Advisor for the fellowship to Italia Elisa Mauriello)

2016 – 2018 **Marie Skłodowska-Curie individual fellowship** (EU-H2020; PI)

2014 – 2016 **Postdoctoral research grant** at the Centre for Integrative Biology, University of Trento, Italy

2013 – 2014 **Postdoctoral research grant** at the School of Civil Engineering, Purdue University, United States

2012 – 2013 **Research grant** at the Computational and Information Sciences and Technology Office, NASA Goddard Space Flight Center, United States

2011 – 2012 **Postdoctoral research grant** at the Department of Information Engineering and Computer Science, University of Trento, Italy

2008 – 2011 **PhD research grant** at the Department of Information Engineering and Computer Science, University of Trento, Italy

Awards

2021	The publication Pasolli et al., <i>Nature Communications</i> , 2020 has been included in the “ Top 50 life and biological sciences articles ” published in Nature Communications in 2020
2020	The publication Pasolli et al., <i>Cell</i> , 2019 has been included in the “ Best of Cell 2019 ” and in the “ Nature Milestones in human microbiota research ”
2020	Inclusion in the list of top 2% cited researchers based on the publication 10.1371/journal.pbio.3000918
2020	Best publication in a high IF journal in 2019 for the paper “Distinct genetic and functional traits of human intestinal <i>Prevotella copri</i> strains are associated with different habitual diets”, granted by Italian Society of Agro-Food and Environmental Microbiology
2018	“ HM Goldman ” award co-recipient for the work on “oral microbiome in peri-implantitis”, granted by SIdP-Italy
2017	Best Reviewer , IEEE Transactions on Geoscience and Remote Sensing
2017 – 2026	Qualification as Associate Professor in Italy (ASN, sector 09/F2)
2017	IEEE Senior Member
2017 February	Travel fellowship award by "Simons Center for Data Analysis: The Second Workshop on Challenges in Microbiome Data Analysis" (Boston, United States)
2015 June	Travel fellowship award by "MetaSUB: Metagenomics and Metadesign of Subways and Urban Biomes Conference" (New York, United States)
2015 June	Travel fellowship award by "EMBL Conference on the Human Microbiome" (Heidelberg, Germany)
2013	Best Reviewer , IEEE Transactions on Geoscience and Remote Sensing
2012	Best Reviewer , IEEE Geoscience and Remote Sensing Letters
2012	Best Reviewer , Elsevier Pattern Recognition Letters

Teaching

2021 / 2022	Lecturer , “Data science and Computational analysis for metagenomics” (6 CFU), Master's degree in Agricultural Biotechnologies, Department of Agricultural Sciences, University of Naples Federico II, Italy
2021 May	Lecturer , “Artificial intelligence/Machine learning/Analytics”, 5G Academy (15 hours), Naples, Italy
2020 / 2021	Lecturer , “Data science” (6 CFU), Master's degree in Agricultural Biotechnologies, Department of Agricultural Sciences, University of Naples Federico II, Italy
2020 April	Lecturer , “Artificial intelligence/Machine learning/Analytics”, 5G Academy (10 hours), Naples, Italy
2018 – 2020	Lecturer , “Data science” (9 CFU), Master's degree in Agricultural Biotechnologies, Department of Agricultural Sciences, University of Naples Federico II, Italy
2015 / 2016	Teaching assistant , "Digital transmission", Bachelor's degree in Telecommunications Engineering, Department of Information Engineering and Computer Science, University of Trento, Italy
2014 / 2016	Teaching assistant , "Recognition systems", Master's degree in Telecommunications Engineering, Department of Information Engineering and Computer Science, University of Trento, Italy
2009 – 2011	Teaching assistant , "Remote sensing technologies for archaeology", Master's degree in Cultural Heritage, Faculty of Letters and Philosophy, University of Trento, Italy
2009 – 2010	Teaching assistant , "Advanced pattern recognition", Master's degree in Telecommunications Engineering, Faculty of Engineering, University of Trento, Italy

Supervision of students

Since 2019	Current/previous supervisor of 5 students, Department of Agricultural Sciences, University of Naples Federico II, Italy. Italia Elisa Mauriello (Ph.D., 2019 – 2022), Renato Giliberti (Ph.D., 2019 – 2022), Silvia Palladino (Master, 2022), Adriana Borzacchiello (Master, 2021), Vittoria Borzacchiello (Master, 2021)
2010 – 2018	As postdoc and Ph.D. student, co-supervisor on the research of 30+ Ph.D., Master, and Bachelor students

Organization of scientific meetings

2020	Scientific committee member for the workshop “Metabarcoding and metagenomic data processing and analyses”, Naples, Italy
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Institutional responsibilities

Since 2021	Member of the Managing Board of the Task Force on Computational and Quantitative Biology, University of Naples Federico II, Italy
Since 2021	Member of the Board of Professors of the PhD School in Computational and Quantitative Biology, University of Naples Federico II, Italy
Since 2021	Accredited educator for AWS Academy at University of Naples Federico II, Italy
Since 2019	Member of the Task Force on Microbiome Studies, University of Naples Federico II, Italy
Since 2019	Member of the Didactic Coordination Council for the Master's degree in Agricultural Biotechnologies, Department of Agricultural Sciences, University of Naples Federico II, Italy
Since 2019	Member of the Thesis Committee for the Master's degree in Agricultural Biotechnologies, Department of Agricultural Sciences, University of Naples Federico II, Italy
Since 2018 2020	Faculty member , Department of Agricultural Sciences, University of Naples Federico II, Italy Attendance of the F.E.D.E.R.I.C.O. Project (Formation Experiences Didactics Evaluation Innovation Reflexivity Competences Organization), University of Naples Federico II, Italy

Invited/selected talks and seminars (since 2015)

2021 November	Selected talk , Microbiome Virtual International Forum (Online)
2021 November	Invited talk , Human Gut Microbiome Summit 2021, Barcelona, Spain (Online)
2021 October	Invited talk , Targeting Microbiota 2021, Paris, France (Online)
2020 December	Invited lecture , ECM course, IRCCS Burlo Garofolo, Trieste, Italy (Online)
2020 November	Seminar , European Researchers' Night, Naples, Italy (Online)
2020 February	Invited workshop , Metabarcoding and metagenomic data processing and analysis workshop, Naples, Italy
2019 December	Seminar , Natale in Reggio, Portici, Italy
2019 October	Invited lecture , IEEE International workshop on metrology for agriculture and forestry, Portici, Italy
2019 October	Selected talk , IEEE International workshop on metrology for agriculture and forestry, Portici, Italy
2019 September	Invited talk , Food and nutrition community workshop, The Hague, Netherlands
2019 August	Seminar , IZS Venezia, Padova, Italy
2019 July	Invited talk , Joint statistical meeting, Denver, United States
2019 July	Invited talk , Networking international biometric society regions conference, Naples, Italy
2019 June	Seminar , Caffè scientifico@Dept. of Agricultural Sciences, University of Naples Federico II, Naples, Italy
2019 February	Seminar , Dept. of Electrical Engineering and Information Technology, University of Naples Federico II, Naples, Italy
2018 October	Seminar , University of Southern Denmark, Odense, Denmark
2018 September	Seminar , European Researchers' Night, Trento, Italy
2018 June	Invited lecture , ECM course, CSS-Mendel Institute, Rome, Italy
2018 May	Seminar , Institut Pasteur, Paris, France
2018 April	Seminar , University of Eastern Piedmont, Novara, Italy
2017 September	Seminar , European Researchers' Night, Trento, Italy
2017 August	Invited talk , Joint statistical meeting, Baltimore, United States
2017 July	Selected workshop , Bioc 2017: where software and biology connect, Boston, United States
2017 May	Seminar , The Festival of Europe, Trento, Italy
2017 February	Invited talk , Second workshop in statistical and algorithmic challenges in microbiome data analysis, Boston, United States
2015 June	Invited talk , MetaSUB workshop, New York, United States
2015 June	Selected talk , EMBL-The human microbiome conference, Heidelberg, Germany

Editorial, reviewer, and scientific committee activity

Since 2020	Topic board : ISPRS International Journal of Geo-Information
Since 2019	Guest editor for special issues : "Pattern analysis in remote sensing" (Remote Sensing, 2020-2021), "Advanced machine learning approaches for hyperspectral data analysis" (Remote Sensing, 2019-2021), "Computational intelligence and advanced learning techniques in remote sensing" (Remote Sensing, 2019-2020), "Advanced deep learning strategies for the analysis of remote sensing images" (Remote Sensing, 2019-2020), "Transfer learning in remote sensing" (IEEE JSTARS, 2019-2020).

Since 2019	Editorial board: Remote Sensing
Since 2019	Reviewer board: Remote Sensing
Since 2019	Scientific advisory board member for the company PreBiomics s.r.l. on “machine learning for the oral microbiome”
Since 2019	Ph.D. thesis evaluator: Maxence Queyrel (2021, Sorbonne University-France), Giorgia Piersigilli (2021, University of Turin-Italy), Camilla Ceccarani (2020, University of Milan-Italy), Mattia Savardi (2019, University of Brescia-Italy)
Since 2015	Reviewer for grant proposals: ANR Agence nationale de la recherche (France, 2021), SIB Swiss Institute of Bioinformatics (2020), ESF - Science Connect (2020, 2019), European Commission H2020 Marie Skłodowska-Curie individual fellowship (2019), National Science Center (Poland, 2021, 2019), Federal University of Toulouse Midi-Pyrénées (France, 2015)
Since 2008	<p>Reviewer for 416 papers in 60+ international journals.</p> <p><i>IEEE:</i> Transactions on Geoscience and Remote Sensing; Geoscience and Remote Sensing Letters; Journal of Selected Topics in Applied Earth Observations and Remote Sensing; Geoscience and Remote Sensing Magazine; Transactions on Image Processing; Transactions on Industrial Electronics; Transactions on Medical Imaging; Transactions on Biomedical Engineering; Transactions on Systems, Man, and Cybernetics, Part B: Cybernetics; Transactions on Systems, Man and Cybernetics: Systems; Transactions on Cybernetics; Electronic Letters; Access</p> <p><i>Elsevier:</i> Remote Sensing of Environment; ISPRS Journal of Photogrammetry and Remote Sensing; International Journal of Applied Earth Observation and Geoinformation; Computer & Geosciences; Journal of Applied Geophysics; Journal of the Franklin Institute; Pattern Recognition Letters; Artificial Intelligence in Medicine; Computers in Biology and Medicine; Journal of Chemometrics; Neurocomputing; Chemometrics and Intelligent Laboratory Systems; Biomedical Signal Processing and Control; Informatics in Medicine Unlocked; Expert Systems with Applications; Marine Genomics; Journal of Functional Foods</p> <p><i>Springer:</i> Journal of Heuristics; Acta Geophysica; Soft Computing; Biomedical Engineering; Signal, Image and Video Processing; Stochastic Environmental Research and Risk Assessment</p> <p><i>MDPI:</i> Remote Sensing; ISPRS International Journal of Geo-Information; Sensors; Metabolites.</p> <p><i>Hindawi:</i> Applied Computational Intelligence and Soft Computing; The Scientific World Journal.</p> <p><i>BMC:</i> Genome Biology; Genome Medicine; Microbiome; Bioinformatics; Genomics; Medical Informatics and Decision Making</p> <p><i>Nature:</i> Nature Biotechnology; Nature Communications; Nature Protocols; Scientific Reports; npj Biofilms and Microbiomes</p> <p><i>Oxford Academic:</i> GigaScience; Bioinformatics</p> <p><i>Taylor & Francis:</i> International Journal of Remote Sensing; Journal of Spatial Science; Marine Geodesy</p> <p><i>SPIE:</i> Journal of Applied Remote Sensing</p> <p><i>Others:</i> Cell Host & Microbe; Gut; eLife; Genome Research; mSystems; PLOS Computational Biology; PLOS One; Applied and Environmental Microbiology; Journal of Applied Microbiology; Frontiers in Microbiology; Frontiers in Cellular and Infection Microbiology; Frontiers in Plant Science; Computing Surveys; The Annals of Applied Statistics; Photogrammetric Engineering and Remote Sensing; Progress in Electromagnetics Research; International Journal of Remote Sensing Applications; International Journal on Artificial Intelligence Tools; Journal of Zhejiang University Science C; The Open Civil Engineering Journal</p>
2019 October	Organizer of the special session “Remote and proximal sensing metrics for the characterization of agricultural and forestry systems”, IEEE International Workshop on Metrology for Agriculture and Forestry 2019, Portici, Italy
2017	Guest academic editor: PLOS One
2015 June	Technical committee member: Conference "IEEE/ISPRS Workshop: EarthVision 2015", Boston, United States

Memberships of scientific societies

Institute of Electrical and Electronics Engineers (**IEEE**), Gruppo Telecomunicazioni e Tecnologie dell'Informazione (Associazione **GTTI**)

Career breaks

2018 **Paternity leave** (2 months full-time)

Publications

	75 indexed publications (Scopus)
H-index	34 (Google scholar), 28 (Scopus)
# citations	> 6,400 (Google scholar), > 4,400 (Scopus)

All international journal papers (* equal contribution)

1. F. De Filippis, L. Paparo, R. Nocerino, G. Della Gatta, L. Carucci, R. Russo, **E. Pasolli**, D. Ercolini, R. Berni Canani. [Specific gut microbiome signatures and the associated pro-inflammatory functions are linked to pediatric allergy and acquisition of immune tolerance](#). *Nature Communications*, 12, Oct. 2021 [IF 2020: 14.919].
2. S. Tarallo, G. Ferrero, F. De Filippis, A. Francavilla, **E. Pasolli**, V. Panero, F. Cordero, N. Segata, S. Grioni, R. G. Pensa, B. Pardini, D. Ercolini, A. Naccarati. [Stool microRNA profiles reflect different dietary and gut microbiome patterns in healthy individuals](#). *Gut*, Jul. 2021 [IF 2020: 23.059].
3. A. Tett, **E. Pasolli**, G. Masetti, D. Ercolini, N. Segata. [Prevotella diversity, niches and interactions with the human host](#). *Nature Reviews Microbiology*, May 2021 [IF 2020: 60.633].
4. S. Terrisse, [25 authors], **E. Pasolli***, S. Delaloge*, L. Zitvogel*. [Intestinal microbiota influences clinical outcome and side effects of early breast cancer treatment](#). *Cell Death & Differentiation*, May 2021 [IF 2020: 15.828].
5. A. Uzan-Yulzari, O. Turta, [5 authors], **E. Pasolli**, [12 authors], S. Rautava, O. Koren. [Neonatal antibiotic exposure impairs child growth during the first six years of life by perturbing intestinal microbial colonization](#). *Nature Communications*, 12, Jan. 2021 [IF 2020: 14.919].
6. **E. Pasolli**, F. De Filippis, I. E. Mauriello, F. Cumbo, A. M. Walsh, J. Leech, P. D. Cotter, N. Segata, D. Ercolini. [Large-scale genome-wide analysis links lactic acid bacteria from food with the gut microbiome](#). *Nature Communications*, 11, Dec. 2020 [IF 2020: 14.919].
7. F. De Filippis, **E. Pasolli**, D. Ercolini. [Newly explored Faecalibacterium diversity is connected to age, lifestyle, geography, and disease](#). *Current Biology*, 30, Dec. 2020 [IF 2020: 10.834].
8. F. Asnicar, A. M. Thomas, F. Beghini, C. Mengoni, S. Manara, P. Manghi, Q. Zhu, M. Bolzan, F. Cumbo, U. May, J. G. Sanders, M. Zolfo, E. Kopylova, **E. Pasolli**, R. Knight, S. Mirarab, C. Huttenhower, N. Segata. [Precise phylogenetic analysis of microbial isolates and genomes from metagenomes using PhyloPhlAn 3.0](#). *Nature Communications*, 11, Dec. 2020 [IF 2020: 14.919].
9. N. Karcher, **E. Pasolli**, [19 authors], N. Segata. [Analysis of 1321 Eubacterium rectale genomes from metagenomes uncovers complex phylogeographic population structure and subspecies functional adaptations](#). *Genome Biology*, 21:138, Dec. 2020 [IF 2020: 13.583].
10. P. Ghensi, P. Manghi, M. Zolfo, F. Armani, **E. Pasolli**, M. Bolzan, A. Bertelle, F. Dell'Acqua, E. Dellasega, R. Waldner, F. Tessarolo, C. Tomasi, N. Segata. [Strong oral plaque microbiome signatures for dental implant diseases identified by strain-resolution metagenomics](#). *npj Biofilms and Microbiomes*, Oct. 2020 [IF 2020: 7.290].
11. A. Fluckiger, [29 authors], **E. Pasolli**, [20 authors], L. Zitvogel. [Cross-reactivity between tumor MHC class I-restricted antigens and an enterococcal bacteriophage](#). *Science*, 369(6506):936-942, Aug. 2020 [IF 2020: 47.728].
12. 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 [IF 2020: 16.408].
13. L. Derosa, B. Routy, M. Fidelle, V. Iebba, L. Alla, **E. Pasolli**, [27 authors], L. Zitvogel. [Gut bacteria composition drives primary resistance to cancer immunotherapy in renal cell carcinoma patients](#). *European Urology*, May 2020 [IF 2020: 20.096].
14. S. Falanga Bolognesi, **E. Pasolli**, O. R. Belfiore, C. De Michele, G. D'Urso. [Harmonized Landsat 8 and Sentinel-2 time series data to detect irrigated areas: an application in southern Italy](#). *Remote Sensing*, 12:8, Apr. 2020 [IF 2020: 4.848].
15. Z. Zhang, **E. Pasolli**, M. M. Crawford. [An adaptive multiview active learning approach for spectral-spatial classification of hyperspectral images](#). *IEEE Transactions on Geoscience and Remote Sensing*, 58:4, Apr. 2020 [IF 2020: 5.600].
16. V. Meslier, M. Laiola, H. M. Roager, F. De Filippis, H. Roume, B. Quinquis, R. Giacco, I. Mennella, R. Ferracane, N. Pons, **E. Pasolli**, A. Rivellese, L. O. Dragsted, P. Vitaglione, S. D. Ehrlich, D. Ercolini. [Mediterranean diet intervention in overweight and obese subjects lowers plasma cholesterol and causes changes in the gut microbiome and metabolome independently of energy intake](#). *Gut*, Feb. 2020 [IF 2020: 23.059].
17. S. Manara, F. Asnicar, F. Beghini, D. Bazzani, F. Cumbo, M. Zolfo, E. Nigro, N. Karcher, P. Manghi, M. I. Metzger, **E. Pasolli**, N. Segata. [Microbial genomes from non-human primate gut metagenomes expand the primate-associated bacterial tree of life with over 1000 novel species](#). *Genome Biology*, 20:299, Dec. 2019 [IF 2019: 10.806].

18. S. Ghaffarian, N. Kerle, **E. Pasolli**, J.J. Arsanjani. [Post-disaster building database updating using automated deep learning: An integration of pre-disaster OpenStreetMap and multi-temporal satellite data](#). *Remote Sensing*, 11:20, Oct. 2019 [IF 2019: 4.509].
19. A. Tett, K. D. Huang, F. Asnicar, H. Fehlner-Peach, **E. Pasolli**, [26 authors], N. Segata. [The *Prevotella copri* complex comprises four distinct clades underrepresented in Westernised populations](#). *Cell Host&Microbe*, 25:10, Oct 2019 [IF 2019: 15.923].
20. A. Thomas, P. Manghi, F. Asnicar, **E. Pasolli**, [32 authors], L. Waldron, A. Naccarati, N. Segata. [Metagenomic analysis of colorectal cancer datasets identifies cross-cohort microbial diagnostic signatures and a link with choline degradation](#). *Nature Medicine*, 25:667-678, Apr. 2019 [IF 2019: 36.130].
21. F. De Filippis, **E. Pasolli**, A. Tett, S. Tarallo, A. Naccarati, M. De Angelis, E. Neviani, L. Cocolin, M. Gobetti, N. Segata, D. Ercolini. [Distinct genetic and functional traits of human intestinal *Prevotella copri* strains are associated with different habitual diets](#). *Cell Host&Microbe*, 25:3, Mar. 2019 [IF 2019: 15.923].
22. D. Dolce, S. Neri, L. Grisotto, [18 authors], **E. Pasolli**, [3 authors], G. Taccetti. [Methicillin-resistant *Staphylococcus aureus* eradication in cystic fibrosis patients: A randomized multicenter study](#). *PLOS ONE*, Mar. 2019 [IF 2019: 2.740].
23. **E. Pasolli**, F. Asnicar, S. Manara, M. Zolfo, N. Karcher, F. Armanini, F. Beghini, P. Manghi, A. Tett, P. Ghensi, M. C. Collado, B. L. Rice, C. DuLong, X. C. Morgan, C. Golden, C. Huttenhower, N. Segata. [Extensive unexplored human microbiome diversity revealed by over 150,000 genomes from metagenomes spanning age, geography, and lifestyle](#). *Cell*, 176:3, Jan. 2019 [IF 2019: 38.637].
24. R. Pedron, A. Esposito, I. Bianconi, **E. Pasolli**, A. Tett, F. Asnicar, M. Cristofolini, N. Segata, O. Jousson. [Genomic and metagenomic insights into the microbial community of a thermal spring](#). *Microbiome*, 7:8, Jan. 2019 [IF 2019: 11.607].
25. S. Manara*, **E. Pasolli***, D. Dolce*, N. Ravenni, S. Campana, F. Armanini, F. Asnicar, A. Mengoni, L. Galli, C. Montagnani, E. Venturini, O. Rota-Stabelli, G. Grandi, G. Taccetti, N. Segata. [Whole-genome epidemiology, characterisation, and phylogenetic reconstruction of *Staphylococcus aureus* strains in a paediatric hospital](#). *Genome Medicine*, 10:82, Nov. 2018 [IF 2018: 10.886].
26. P. Ferretti, **E. Pasolli***, A. Tett*, F. Asnicar*, [40 authors], N. Segata. [Mother-to-infant microbial transmission from different body sites shapes the developing infant gut microbiome](#). *Cell Host&Microbe*, 24:1, Jul. 2018 [IF 2018: 15.753].
27. M. Yassour, E. Jason, L. J. Hogstrom, T. D. Arthur, S. Tripathi, H. Siljander, J. Selvenius, S. Oikarinen, H. Hyoty, S. M. Virtanen, J. Ilonen, P. Ferretti, **E. Pasolli**, A. Tett, F. Asnicar, N. Segata, H. Vlamakis, E. S. Lander, C. Huttenhower, M. Knip, R. J. Xavier. [Strain-level analysis of mother-to-child bacterial transmission during the first few months of life](#). *Cell Host&Microbe*, 24:1, Jul. 2018 [IF 2018: 15.753].
28. M. Zolfo, F. Asnicar, P. Manghi, **E. Pasolli**, A. Tett, N. Segata. [Profiling microbial strains in urban environments using metagenomic sequencing data](#). *Biology Direct*, 13:9, May 2018 [IF 2018: 3.010].
29. F. Pinto, A. Tett, F. Armanini, F. Asnicar, A. Boscaini, **E. Pasolli**, M. Zolfo, C. Donati, N. Salmaso, N. Segata. [Draft genome sequences of novel *Pseudomonas*, *Flavobacterium*, and *Sediminibacterium* strains from a freshwater ecosystem](#). *Genome Announcements*, 6(5):e00009-18, Feb. 2018.
30. **E. Pasolli***, L. Schiffer*, P. Manghi*, A. Renson, V. Obenchain, D. T. Truong, F. Beghini, F. Malik, M. Ramos, J. B. Dowd, C. Huttenhower, M. Morgan, N. Segata, L. Waldron. [Accessible, curated metagenomic data through ExperimentHub](#). *Nature Methods*, 14(11):1023-1024, Nov. 2017 [IF 2017: 26.919].
31. F. Pinto, A. Tett, F. Armanini, F. Asnicar, A. Boscaini, **E. Pasolli**, M. Zolfo, C. Donati, N. Salmaso, N. Segata. [Draft genome sequence of the planktic cyanobacterium *Tychonema bourrellyi*, isolated from alpine lentic freshwater](#). *Genome Announcements*, 5(47):e01294-17, Nov. 2017.
32. F. Beghini*, **E. Pasolli***, D. T. Truong, L. Putignani, S. Cacciò, N. Segata. [Large-scale comparative metagenomics of *Blastocystis*, a common member of the human gut microbiome](#). *ISME Journal*, 11:2848-2863, Aug. 2017 [IF 2017: 9.520].
33. S. Wuyts, S. Wittouck, I. De Boeck, C. Allonsius, **E. Pasolli**, N. Segata, S. Lebeer. [Large-scale phylogenomics of the *Lactobacillus casei* group highlights taxonomic inconsistencies and reveals novel clade-associated features](#). *mSystems*, 2(4):e00061-17, Aug. 2017 [IF 2017: 5.750].
34. A. Tett, **E. Pasolli***, S. Farina*, D. T. Truong*, F. Asnicar, M. Zolfo, F. Beghini, F. Armanini, O. Jousson, V. De Sanctis, R. Bertorelli, G. Girolomoni, M. Cristofolini, N. Segata. [Unexplored diversity and strain-level structure of the skin microbiome associated with psoriasis](#). *npj Biofilms and Microbiomes*, Jun. 2017 [IF 2017: 4.128].
35. S. Duranti, [13 authors], **E. Pasolli**, [17 authors], M. Ventura. [Maternal inheritance of bifidobacterial communities and bifidophages in infants through vertical transmission](#). *Microbiome*, 5:66, Jun. 2017 [IF 2017: 9.133].
36. D. T. Truong, A. Tett, **E. Pasolli**, C. Huttenhower, N. Segata. [Microbial strain-level population structure and genetic diversity from metagenomes](#). *Genome Research*, Feb. 2017 [IF 2017: 10.101].

37. E. Pasolli, D. T. Truong, F. Malik, L. Waldron, N. Segata. [Machine learning meta-analysis of large metagenomic datasets: tools and biological insights](#). *PLOS Computational Biology*, 12(7):e1004977, Jul. 2016 [IF 2016: 4.542].
38. Z. Zhang, E. Pasolli, H. L. Yang, and M. M. Crawford. [Multimetric active learning for classification of remote sensing data](#). *IEEE Geoscience and Remote Sensing Letters*, 13(7):1007-1011, Jul. 2016 [IF 2016: 2.761].
39. The MetaSUB International Consortium. [The metagenomics and metadesign of the subways and urban biomes \(MetaSUB\) international consortium inaugural meeting report](#). *Microbiome*, 4(1):1-14, Jun. 2016 [IF 2016: 8.496].
40. M. Scholz*, D. W. Ward*, E. Pasolli*, T. Tolio, M. Zolfo, F. Asnicar, D. T. Truong, A. Tett, A. L. Morrow, and N. Segata. [Strain-level microbial epidemiology and population genomics from shotgun metagenomics](#). *Nature Methods*, 13(5):435-438, May 2016 [IF 2016: 25.062].
41. E. Pasolli, H. L. Yang, and M. M. Crawford. [Active-metric learning for classification of remotely sensed hyperspectral images](#). *IEEE Transactions on Geoscience and Remote Sensing*, 54(4):1925-1939, Apr. 2016 [IF 2016: 4.942].
42. Z. Zhang, E. Pasolli, M. M. Crawford, and J. C. Tilton. [An active learning framework for hyperspectral image classification using hierarchical segmentation](#). *IEEE Journal of Selected Topics in Applied Earth Observation and Remote Sensing*, 9(2):640-654, Feb. 2016 [IF 2016: 2.913].
43. D. T. Truong, E. A. Franzosa, T. T. Tickle, M. Scholz, G. Weingart, E. Pasolli, A. Tett, C. Huttenhower, and N. Segata. [MetaPhlan2 for enhanced metagenomic taxonomic profiling](#). *Nature Methods*, 12(10):902-903, Oct. 2015 [IF 2015: 25.328].
44. E. Pasolli and F. Melgani. [Genetic-algorithm based method for mitigating label noise issue in ECG signal classification](#). *Biomedical Signal Processing and Control*, 19:130-136, May 2015 [IF 2015: 1.521].
45. Y. Zhang, H. L. Yang, S. Prasad, E. Pasolli, J. Jung, and M. M. Crawford. [Ensemble multiple kernel active learning for classification of multi-source remote sensing data](#). *IEEE Journal of Selected Topics in Applied Earth Observation and Remote Sensing*, 8(2):845-858, Feb. 2015 [IF 2015: 2.145].
46. E. Pasolli, F. Melgani, D. Tuia, F. Pacifici, and W. J. Emery. [SVM active learning approach for image classification using spatial information](#). *IEEE Transactions on Geoscience and Remote Sensing*, 52(4):2217-2233, Apr. 2014 [IF 2014: 3.514].
47. J. Jung, E. Pasolli, S. Prasad, J. C. Tilton, and M. M. Crawford. [A framework for land cover classification using discrete return LiDAR data: Adopting pseudo-waveform and hierarchical segmentation](#). *IEEE Journal of Selected Topics in Applied Earth Observation and Remote Sensing*, 7(2):491-502, Feb. 2014 [IF 2014: 3.026].
48. N. Alajlan, E. Pasolli, F. Melgani, and A. Franzoso. [Large-scale image classification using active learning](#). *IEEE Geoscience and Remote Sensing Letters*, 11(1):259-263, Jan. 2014 [IF 2014: 2.095].
49. E. Pasolli, F. Melgani, N. Alajlan, and N. Conci. [Optical image classification: a ground-truth design framework](#). *IEEE Transactions on Geoscience and Remote Sensing*, 51(6):3580-3597, Jun. 2013 [IF 2013: 2.933].
50. E. Pasolli, F. Melgani, N. Alajlan, and Y. Bazi. [Active learning methods for biophysical parameter estimation](#). *IEEE Transactions on Geoscience and Remote Sensing*, 50(10):4071-4084, Oct. 2012 [IF 2012: 3.467].
51. N. Segata*, E. Pasolli*, F. Melgani, and E. Blanzieri. [Local SVM approaches for fast and accurate classification of remote sensing images](#). *International Journal of Remote Sensing*, 33(19):6186-6201, Oct. 2012 [IF 2012: 1.138].
52. F. Douak, F. Melgani, N. Alajlan, E. Pasolli, Y. Bazi, and N. Benoudjit. [Active learning for spectroscopic data regression](#). *Journal of Chemometrics*, 26(7):374-383, Jul. 2012 [IF 2012: 1.937].
53. D. Tuia, E. Pasolli, and W. J. Emery. [Using active learning to adapt remote sensing image classifiers](#). *Remote Sensing of Environment*, 115(9):2232-2242, Sep. 2011 [IF 2011: 4.574].
54. E. Pasolli, F. Melgani, and Y. Bazi. [Support vector machine active learning through significance space construction](#). *IEEE Geoscience and Remote Sensing Letters*, 8(3):431-435, May 2011 [IF 2011: 1.560].
55. E. Pasolli and F. Melgani. [Active learning methods for electrocardiographic signal classification](#). *IEEE Transactions on Information Technology in Biomedicine*, 14(6):1405-1416, Nov. 2010 [IF 2010: 1.707].
56. E. Pasolli, F. Melgani, and M. Donelli. [Gaussian process approach to buried object size estimation in GPR images](#). *IEEE Geoscience and Remote Sensing Letters*, 7(1):141-145, Jan. 2010 [IF 2010: 1.431].
57. A. Paoli, F. Melgani, and E. Pasolli. [Clustering of hyperspectral images based on multiobjective particle swarm optimization](#). *IEEE Transactions on Geoscience and Remote Sensing*, 47(12):4175-4187, Dec. 2009 [IF 2009: 2.234].
58. E. Pasolli, F. Melgani, and M. Donelli. [Automatic analysis of GPR images: a pattern-recognition approach](#). *IEEE Transactions on Geoscience and Remote Sensing*, 47(7):2206-2217, Jul. 2009 [IF 2009: 2.234].

Books

1. Y. Bazi and E. Pasolli. [Advanced deep learning strategies for the analysis of remote sensing images](#). MDPI, 2021.

Book chapters

1. **E. Pasolli**, S. Prasad, M. M. Crawford, J. Tilton. [Advances in hyperspectral image classification methods for vegetation and agricultural cropland studies](#). In P. S. Thenkabail et al., editors, *Hyperspectral remote sensing of vegetation (second edition)*. CRC Press, 2019.
2. N. Meger, **E. Pasolli**, C. Rigotti, E. Trouve, F. Melgani. [Satellite image time series: mathematical models for data mining and missing data restoration](#). In J. Zerubia and G. Moser, editors, *Mathematical models for remote sensing image processing*. Springer, 2018.
3. F. Melgani, G. Mercier, L. Lorenzi, and **E. Pasolli**. [Recent methods for reconstructing missing data in multispectral satellite imagery](#). In R. S. Anderssen et al., editors, *Applications + practical conceptualization + mathematics = fruitful innovation*, pages 221-234. Springer, 2016.
4. F. Melgani and **E. Pasolli**. [Multiobjective PSO for hyperspectral image clustering](#). In A. Chatterjee and P. Siarry, editors, *Modern image processing algorithms employing computational intelligence techniques*, pages 265-280. Springer, 2013.

International conference papers

1. Z. Zhang, **E. Pasolli**, M. M. Crawford. [Crop mapping through an adaptive multiview active learning strategy](#). In Proceedings of the *IEEE International Workshop on Metrology for Agriculture and Forestry 2019*, Portici, Italy, 2019.
2. F. De Filippis, **E. Pasolli**, A. Tett, M. De Angelis, E. Neviani, S. Turrone, L. Cocolin, M. Gobbetti, N. Segata, D. Ercolini. [Habitual diet selects distinct genetic and functional subtypes of intestinal *Prevotella copri*](#). In Proceedings of the *International Human Microbiome Consortium Meeting 2018*, Killarney, Ireland, 2018.
3. D. Dolce, N. Ravenni, S. Campana, E. Camera, S. Neri, C. Braggion, S. Manara, **E. Pasolli**, F. Armanini, N. Segata, G. Taccetti. [Longitudinal study of methicillin-resistant *Staphylococcus aureus* genetic background isolated from cystic fibrosis patients](#). In Proceedings of the *European Cystic Fibrosis Conference*, Journal of Cystic Fibrosis, 16(S90), Jul. 2017.
4. D. Dolce, N. Ravenni, S. Campana, E. Camera, T. Orioli, S. Neri, C. Braggion, S. Manara, **E. Pasolli**, F. Armanini, N. Segata, G. Taccetti. [Genetic background of methicillin-resistant *Staphylococcus aureus* isolates from cystic fibrosis patients: a three-year longitudinal study](#). In Proceedings of the *Annual North American Cystic Fibrosis Conference*, Pediatric Pulmonology, 51(S45):318, Oct. 2016.
5. M. Scholz, D. W. Ward, **E. Pasolli**, T. Tolio, M. Zolfo, F. Asnicar, D. T. Truong, A. Tett, A. L. Morrow, and N. Segata. [Pangenome-based computational metagenomic profiling enables strain-level culture-free epidemiology and population genomic studies](#). In Proceedings of the *ECCB 2016*, The Hague, Netherlands, 2016.
6. **E. Pasolli**, H. L. Yang, and M. M. Crawford. [Combining active and metric learning for hyperspectral image classification](#). In Proceedings of the *IEEE Workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing 2014*, Lausanne, Switzerland, 2014.
7. J. C. Tilton and **E. Pasolli**. [Incorporating edge information into best merge region-growing segmentation](#). In Proceedings of the *IEEE International Geoscience and Remote Sensing Symposium 2014*, pages 4891-4894, Quebec, Canada, 2014.
8. **E. Pasolli** and F. Melgani. [An approach for classifying large scale images](#). In Proceedings of the *IEEE International Geoscience and Remote Sensing Symposium 2012*, pages 5410-5413, Munich, Germany, 2012.
9. F. Douak, F. Melgani, **E. Pasolli**, and N. Benoudjit. [SVR active learning for product quality control](#). In Proceedings of the *International Conference on Information Science, Signal Processing and their Applications 2012*, pages 1113-1117, Montreal, Canada, 2012.
10. **E. Pasolli** and F. Melgani. [Ground-truth assisted design for remote sensing image classification](#). In Proceedings of the *IEEE International Geoscience and Remote Sensing Symposium 2011*, pages 609-612, Vancouver, Canada, 2011.
11. **E. Pasolli** and F. Melgani. [Gaussian process regression within an active learning scheme](#). In Proceedings of the *IEEE International Geoscience and Remote Sensing Symposium 2011*, pages 3574-3577, Vancouver, Canada, 2011.
12. **E. Pasolli**, F. Melgani, D. Tuia, F. Pacifici, and W. J. Emery. [Improving active learning methods using spatial information](#). In Proceedings of the *IEEE International Geoscience and Remote Sensing Symposium 2011*, pages 3923-3926, Vancouver, Canada, 2011.
13. D. Tuia, **E. Pasolli**, and W. J. Emery. [Dataset shift adaptation with active queries](#). In Proceedings of the *Joint Urban Remote Sensing Event 2011*, pages 121-124, Munich, German, 2011.
14. F. Melgani, G. Mahlkecht, **E. Pasolli**, E. Gottardini, A. Cristofori, F. Cristofolini, and N. La Porta. [Exploiting ozone concentration measurements from satellite remote sensors for forest monitoring: a feasibility study](#). In Proceedings of the *IUFRO World Congress 2010*, pages 336-336, Seoul, Republic of Korea, 2010.

15. **E. Pasolli** and F. Melgani. [Model-based active learning for SVM classification of remote sensing images](#). In Proceedings of the *IEEE International Geoscience and Remote Sensing Symposium 2010*, pages 820–823, Honolulu, Hawaii, 2010.
16. A. Paoli, F. Melgani, and **E. Pasolli**. [Swarm intelligence for unsupervised classification of hyperspectral images](#). In Proceedings of the *IEEE International Geoscience and Remote Sensing Symposium 2009*, pages V–96–V–99, Cape Town, South Africa, 2009.
17. **E. Pasolli**, F. Melgani, and M. Donelli. [A pattern recognition system for extracting buried object characteristics in GPR images](#). In Proceedings of the *IEEE International Geoscience and Remote Sensing Symposium 2009*, pages IV–430–IV–433, Cape Town, South Africa, 2009.
18. **E. Pasolli**, F. Melgani, M. Donelli, R. Attoui, and M. de Vos. [A pattern recognition system for archaeological exploration with GPR images](#). In Proceedings of the *Colloque International sur l'Archeologie 2009*, Tebessa, Algeria, 2009.
19. **E. Pasolli**, F. Melgani, M. Donelli, R. Attoui, and M. de Vos. [Automatic detection and classification of buried objects in GPR images using genetic algorithms and support vector machines](#). In Proceedings of the *IEEE International Geoscience and Remote Sensing Symposium 2008*, pages II–525–II–528, Boston, USA, 2008.