



Giorgio Cattani

Date of birth: 03/06/1967

Nationality: Italian

Gender: Male

CONTACT

Via Vitaliano Brancati 48,
00144 Rome, Italy (**Work**)

giorgio.cattani@isprambiente
.it

(+39) 3318134307

WORK EXPERIENCE

23/11/2005 – CURRENT Rome, Italy

air quality monitoring unit head Italian Institute for environmental protection and research

- Since 2017 to date: Ispra air quality monitoring unit head
- Member, Ministry of the Environment working group on air quality assessment and management pursuant to article 20 of Legislative Decree 155/2010 for the implementation of Decision 2011/850/EC containing provisions for the implementation of Directives 2004/107/EC and 2008/50/EC
- Since 2018 to date: coordinator of the National System for Environmental Protection network of representatives on air quality and member of the ISPRA representatives table in the thematic networks
- Since 2012 to date: he has been responsible for the critical review of zoning and network projects as technical support to the Italian Ministry of environment.
- Since 2017 to date: he coordinates the thematic contribution provided by the air quality monitoring section, to the activities of collection, control, management, processing and communication at European level of information on air quality (data and metadata), in accordance with the provisions of Legislative Decree 155/2010 (art. 19).
- Since 2017 to date: coordinator, "Atmosphere" chapter of the Italian environmental data yearbook
- Since may 2023 to date: project manager: work package "air quality assessment" national project "environmental and health sustainability in port cities"
- 01/07/2020 – 30/10/2022: work package manager, objective 1 - national project (ISS-ISPRA-ENEA-SNPA) pulviris (<http://pulviris.it>)
- 2020 - 2022: member, steering committee and "environmental exposure assessment" working group of the National Epidemiological Study on Air Pollution and the COVID19 Epidemic (Epicovair).
- 14/09/2017 – 30/11/2019: work package manager and convention manager: research project "Integrated experimental numerical study of the transfer methods of particulate material suspended in the atmosphere within indoor working environments in the area urban, depending on the physical, chemical, micrometeorological factors and the construction characteristics of the buildings"
- 2017 - 2021, work Package Manager: (WP4000) project: "The Global Platform for the Sentinel GS for Air Quality" between ISPRA and ASI
- 15/09/2016 - 2020: Member, Working Group on air quality: LIFE15 MONZA ENV / IT / 000856
- 15/11/2011 - 15/03/2014: work package manager and convention manager: project "Methods for the Integrated Assessment of Environmental and Health Impact (VIAS) of air pollution
- 22/03/2011 - 21/03/2013: work package manager and convention manager: project "Impact of Environmental Pollution Produced by Airports on Health of Residents



01/09/1997 – 01/11/2005 Rome, Italy

Research assistant ISTITUTO SUPERIORE DI SANITA'

- studies and research on atmospheric pollution and the health effects of the exposed population in urban and industrial areas: planning of monitoring campaigns, sampling, development of analytical methods, qualitative and quantitative chemical analysis.
- 2001 – 2004: work package investigator: "Health effects of air pollution on susceptible subpopulation – traditional air pollutants, ultrafine particles and myocardial infraction: database and health assessment" (QLK4 CT 2000-0708 HEAPSS).
- 2002: work package investigator: COMITÈE EUROPEEN DE NORMALISATION: "QA/QC procedure for the field measurement campaigns (manual gravimetric measurement)" Technical manager for the inter-comparison activities for the city of Rome.
- 1/08/2001 - 31/12/2001: Respiratory Allergy and Inflammation Due to Ambient Particles" (RAIAP). Technical manager for air particulate sampling for the city of Rome.
- ISS Convention - Ministry of the Environment: "Health effects of air pollution in urban areas; particulate and heavy metal selected". Technical manager for Sampling and analytical method development and assessment

01/01/2000 – 22/11/2005 Rome, Italy

Consultant, chemical risk assessment in the workplace ALITALIA - Italian Airways

Professional services as a chemist specializing in safety and protection; assessment of risk factors in the work environments pertaining to the Alitalia Group in support of the activities of the Aeronautical and Occupational Medicine Service

EDUCATION AND TRAINING

Rome, Italy

Master of science industrial protection and safety (100/100) University of Rome, La Sapienza

Rome, Italy

Degree in chemistry (110/110) University of Rome, La Sapienza

LANGUAGE SKILLS

MOTHER TONGUE(S): Italian

Other language(s):

English

Listening C1	Spoken production C1
Reading C1	Spoken interaction C1
Writing C1	

French

Listening B1	Spoken production B1
Reading B2	Spoken interaction B2
Writing B1	

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

R | Microsoft Office

PUBBLICATIONS

- Stafoggia M, Cattani G, Ancona C, Gasparrini A, Ranzi A. Comment on “Deep Ensemble Machine Learning Framework for the Estimation of PM_{2.5} Concentrations”. 2022; *Environmental Health Perspectives* 130:6 CID: 068001 <https://doi.org/10.1289/EHP11385>
- Fioravanti G, Cameletti M, Martino S, Cattani G, Pisoni E. A spatiotemporal analysis of NO₂ concentrations during the Italian 2020 COVID-19 lockdown. *Environmetrics*. 2022 Jun;33(4):e2723. doi: 10.1002/env.2723. Epub 2022 Mar 12. PMID: 35574514; PMCID: PMC9087439.
- Adami G, Pontalti M, Cattani G, et al. Association between long-term exposure to air pollution and immune-mediated diseases: a population-based cohort study. *RMD Open* 2022;8:e002055. doi: 10.1136/rmdopen-2021-002055
- Gaeta A, Leone G, Di Menno di Bucchianico A, Cusano M, Gaddi R, Pelliccioni A, Reatini MA, Di Bernardino A, Cattani G. Spatio-Temporal Modeling of Small-Scale Ultrafine Particle Variability Using Generalized Additive Models. *Sustainability*. 2022; 14(1):313. <https://doi.org/10.3390/su14010313>
- Adami G, Cattani G, Rossini M, Viapiana O, Olivi P, Orsolini G, Bertoldo E, Fracassi E, Gatti D, Fassio A. Association between exposure to fine particulate matter and osteoporosis: a population-based cohort study. *Osteoporos Int*. 2021 Jul 15. doi: 10.1007/s00198-021-06060-9. Epub ahead of print. PMID: 34268604.
- Moroni B, Crocchianti S, Bruschi F, Petroselli C, Di Menno di Bucchianico A, Cattani G, Ferrero L, Cappelletti D. Characteristics and Extent of Particulate Matter Emissions of a Ropeway Public Mobility System in the City Center of Perugia (Central Italy). *Atmosphere*. 2021; 12(10):1356. <https://doi.org/10.3390/atmos12101356>
- Di Menno di Bucchianico A, Cusano M, Gaddi R, Gaeta A, Leone G, Boccuni F, Ferrante R, Pelliccioni A, Cattani G. Indoor and Outdoor Particle Number Concentration in the Sapienza University Campus of Rome. *Sustainability*. 2021; 13(16):9126. <https://doi.org/10.3390/su13169126>
- Guido Fioravanti, Sara Martino, Michela Cameletti, Giorgio Cattani, Spatio-temporal modelling of PM₁₀ daily concentrations in Italy using the SPDE approach, *Atmospheric Environment*, Volume 248, 2021, 118192, ISSN 1352-2310, <https://doi.org/10.1016/j.atmosenv.2021.118192>.
- Pelliccioni A, Monti P, Cattani G, Boccuni F, Cacciani M, Canepari S, Capone P, Catrambone M, Cusano M, D’Ovidio MC, De Santis A, Di Bernardino A, Di Menno di Bucchianico A, Di Renzi S, Ferrante R, Gaeta A, Gaddi R, Gherardi M, Giusto M, Gordiani A, Grandoni L, Leone G, Leuzzi G, L’Episcopo N, Marcovecchio F, Pini A, Sargolini T, Tombolini F, Tofful L, Perrino C. Integrated Evaluation of Indoor Particulate Exposure: The VIEPI Project. *Sustainability*. 2020; 12(22):9758. <https://doi.org/10.3390/su12229758>
- Stafoggia M, Cattani G, Ancona C, Ranzi A. La valutazione dell’esposizione della popolazione italiana all’inquinamento atmosferico nel periodo 2016-2019 per lo studio della relazione tra inquinamento atmosferico e COVID-19 [Exposure assessment of air pollution in Italy 2016-2019 for future studies on air pollution and COVID-19]. *Epidemiol Prev*. 2020 Sep-Dec;44(5-6 Suppl 2):161-168. Italian. doi: 10.19191/EP20.5-6.S2.115. PMID: 33412807.
- Pini, A., Grandoni, L., Leuzzi, G., Monti, P., Di Bernardino, A., Pelliccioni, A., Gherardi, M., Cattani, G., Di Menno Bucchianico, A., 2020. A simplified analytical model of ultrafine particle concentration within an indoor environment. *IOP Conf. Ser.: Earth Environ. Sci.* 489, 12009.
- Pini, A., Musa, I., Monti, P., Leuzzi, G., Di Bernardino, A., Cattani, G., Di Menno Bucchianico, A., Gherardi, M., Pelliccioni, A., 2020. Numerical and experimental analysis of flow and particulate matter dispersion in indoor environment. *IOP Conf. Ser.: Earth Environ. Sci.* 489, 12007.
- Silvaggio, R., Curcuruto, S., Mazzocchi, E., Borchì, F., Bartalucci, C., Governi, L., Carfagni, M., Bellomini, R., Luzzi, S., Colucci, G., Cattani, G., Gaeta, A., Leone, G., Di Menno di Bucchianico, A., Cusano, M., Algieri, A., Colombi, C., Cuccia, E., & Santo, U. (2020). LIFE Monza: comparison between ante and post-operam noise and air quality monitoring activities in a Noise Low Emission Zone, *Noise Mapping*, 7(1), 171-191. doi: <https://doi.org/10.1515/noise-2020-0015>
- G, Cesaroni; C, Ancona; G, Cattani; A, Gaeta; C, Badaloni; P, Michelozzi; M, Davoli; F, Forastiere; M, Stafoggia. Long-term exposure to ultrafine particles and cause-specific mortality in the Rome Longitudinal Study. *Environmental Epidemiology*. 3:56, October 2019. <https://journals.lww.com/environepidem/toc/2019/10001>
- Di Menno di Bucchianico, A., Brighetti, M.A., Cattani, G., Costa, C., Cusano, M., Gironimo, V. de, Froio, F., Gaddi, R., Pelosi, S., Sfika, I., Travaglini, A., Tripodi, S., 2019. Combined effects of air pollution and allergens in the city of Rome. *Urban Forestry & Urban Greening* 37, 13–23.
- Badaloni, C., Cattani, G., De’ Donato, F., Gaeta, A., Leone, G., Michelozzi, P., Davoli, M., Forastiere, F., Stafoggia, M., 2018. Big data in epidemiologia ambientale. Dati satellitari e uso del territorio per la stima delle esposizioni a livello nazionale. *Epidemiologia e prevenzione* 42 (1), 46–59.
- Cattani, G., Gaeta, A., Di Menno Bucchianico, A., De Santis, Gaddi, R., Cusano, M., Ancona, C., Badaloni, C., Forastiere, F., Gariazzo, C., Sozzi, R., Inglessis, M., Silibello, C., Salvatori, E., Manes, F., Cesaroni, G., 2017. Development of land-use regression models for exposure assessment to ultrafine particles in Rome, Italy. *Atmospheric Environment* 156, 52–60.

- Renzi, M., Stafoggia, M., Faustini, A., Cesaroni, G., Cattani, G., Forastiere, F., 2017. Analysis of Temporal Variability in the Short-term Effects of Ambient Air Pollutants on Nonaccidental Mortality in Rome, Italy (1998-2014). *Environmental Health Perspectives* 125 (6), 67019.
- Stafoggia, M., Schneider, A., Cyrus, J., Samoli, E., Andersen, Z.J., Bedada, G.B., Bellander, T., Cattani, G., Eleftheriadis, K., Faustini, A., Hoffmann, B., Jacquemin, B., Katsouyanni, K., Massling, A., Pekkanen, J., Perez, N., Peters, A., Quass, U., Yli-Tuomi, T., Forastiere, F., 2017. Association Between Short-term Exposure to Ultrafine Particles and Mortality in Eight European Urban Areas. *Epidemiology (Cambridge, Mass.)* 28 (2), 172–180.
- Stafoggia, M., Schwartz, J., Badaloni, C., Bellander, T., Alessandrini, E., Cattani, G., De' Donato, F., Gaeta, A., Leone, G., Lyapustin, A., Sorek-Hamer, M., Hoogh, K. de, Di, Q., Forastiere, F., Kloog, I., 2017. Estimation of daily PM10 concentrations in Italy (2006-2012) using finely resolved satellite data, land use variables and meteorology. *Environment international* 99, 234–244.
- Uccelli, R., Mastrantonio, M., Altavista, P., Caiaffa, E., Cattani, G., Belli, S., Comba, P., 2017. Female lung cancer mortality and long-term exposure to particulate matter in Italy. *European journal of public health* 27 (1), 178–183.
- Gaeta, A., Cattani, G., Di Menno Bucchianico, A., Santis, A. de, Cesaroni, G., Badaloni, C., Ancona, C., Forastiere, F., Sozzi, R., Bolignano, A., Sacco, F., 2016. Development of nitrogen dioxide and volatile organic compounds land use regression models to estimate air pollution exposure near an Italian airport. *Atmospheric Environment* 131, 254–262.
- Samoli, E., Andersen, Z.J., Katsouyanni, K., Hennig, F., Kuhlbusch, T.A.J., Bellander, T., Cattani, G., Cyrus, J., Forastiere, F., Jacquemin, B., Kulmala, M., Lanki, T., Loft, S., Massling, A., Tobias, A., Stafoggia, M., 2016. Exposure to ultrafine particles and respiratory hospitalisations in five European cities. *The European respiratory journal* 48 (3), 674–682.
- Stafoggia, M., Cattani, G., Forastiere, F., Di Menno Bucchianico, A., Gaeta, A., Ancona, C., 2016. Particle number concentrations near the Rome-Ciampino city airport. *Atmospheric Environment* 147, 264–273.
- Cattani, G., Di Menno Bucchianico, A., Gaeta, A., Romani, D., Fontana, L., Iavicoli, I., 2014. Aeroporti e qualità dell'aria: una sintesi critica della letteratura scientifica. *Epidemiologia e prevenzione* 38 (3-4), 254–261.
- Di Menno Bucchianico, A., Cattani, G., Gaeta, A., Caricchia, A.M., Troiano, F., Sozzi, R., Bolignano, A., Sacco, F., Damizia, S., Barberini, S., Caleprico, R., Fabozzi, T., Ancona, C., Ancona, L., Cesaroni, G., Forastiere, F., Gobbi, G.P., Costabile, F., Angelini, F., Barnaba, F., Inglessis, M., Tancredi, F., Palumbo, L., Fontana, L., Bergamaschi, A., Iavicoli, I., 2014. Inquinamento atmosferico in un'area urbana limitrofa all'aeroporto di Roma-Ciampino. *Epidemiologia e prevenzione* 38 (3-4), 244–253.
- Gandini, M., Berti, G., Cattani, G., Faustini, A., Scarinzi, C., De'donato, F., Accetta, G., Angiuli, L., Caldara, S., Carreras, G., Casale, P., Di Biagio, K., Giannini, S., Iuzzolino, C., Lanzani, G., Lauriola, P., Leuci, P., Mariuz, M., Marchesi, S., Nocioni, A., Pistollato, S., Pizzi, L., Ranzi, A., Serinelli, M., Stagarò, E., Vianello, L., Vigotti, M.A., Zauli-Sajani, S., Cadum, E., 2013. Indicatori ambientali nello studio EpiAir2: i dati di qualità dell'aria per la sorveglianza epidemiologica. *Epidemiologia e prevenzione* 37 (4-5), 209–219.
- Cesaroni, G., Boogaard, H., Jonkers, S., Porta, D., Badaloni, C., Cattani, G., Forastiere, F., Hoek, G., 2012. Health benefits of traffic-related air pollution reduction in different socioeconomic groups: the effect of low-emission zoning in Rome. *Occupational and environmental medicine* 69 (2), 133–139.
- Hänninen, O., Hoek, G., Mallone, S., Chellini, E., Katsouyanni, K., Gariazzo, C., Cattani, G., et al. Seasonal patterns of outdoor PM infiltration into indoor environments: review and meta-analysis of available studies from different climatological zones in Europe. *Air Qual Atmos Health* 4, 221–233 (2011). <https://doi.org/10.1007/s11869-010-0076-5>.
- Belleudi, V., Faustini, A., Stafoggia, M., Cattani, G., Marconi, A., Perucci, C.A., Forastiere, F., 2010. Impact of fine and ultrafine particles on emergency hospital admissions for cardiac and respiratory diseases. *Epidemiology (Cambridge, Mass.)* 21 (3), 414–423.
- Cattani, G., Di Menno Bucchianico, A., Dina, D., Inglessis, M., Notaro, C., Settimo, G., Viviano, G., Marconi, A., 2010. Evaluation of the temporal variation of air quality in Rome, Italy, from 1999 to 2008. *Annali dell'Istituto superiore di sanità* 46 (3), 242–253.
- Belleudi, V., Forastiere, F., Faustini, A., Stafoggia, M., Cattani, G., Marconi, A., 2007. Seasonal Effect of Fine and Ultrafine Particles on Hospitalization for Cardiac and Respiratory Diseases. *Epidemiology (Cambridge, Mass.)* 18 (Suppl), S112.
- Frostier, F., Belleudi, V., Faustini, A., Stafoggia, M., Cattani, G., Marconi, A., 2007. Fine and Ultrafine Particles and Hospital Admissions for Cardiovascular and Respiratory Diseases. *Epidemiology (Cambridge, Mass.)* 18 (Suppl), S112.
- Marconi, A., Cattani, G., Cusano, M., Ferdinandi, M., Inglessis, M., Viviano, G., Settimo, G., Forastiere, F., 2007. Two-years of fine and ultrafine particles measurements in Rome, Italy. *Journal of toxicology and environmental health. Part A* 70 (3-4), 213–221.
- Valente, P., Forastiere, F., Bacosi, A., Cattani, G., Di Carlo, S., Ferri, M., Figà-Talamanca, I., Marconi, A., Paoletti, L., Perucci, C., Zuccaro, P., 2007. Exposure to fine and ultrafine particles from secondhand smoke in public places before and after the smoking ban, Italy 2005. *Tobacco Control* 16 (5), 312–317.
- Aalto, P., Hämeri, K., Paatero, P., Kulmala, M., Bellander, T., Berglind, N., Bouso, L., Castaño-Vinyals, G., Sunyer, J., Cattani, G.,

- Marconi, A., Cyrus, J., Klot, S. von, Peters, A., Zetzsche, K., Lanki, T., Pekkanen, J., Nyberg, F., Sjövall, B., Forastiere, F., 2005. Aerosol particle number concentration measurements in five European cities using TSI-3022 condensation particle counter over a three-year period during health effects of air pollution on susceptible subpopulations. *Journal of the Air & Waste Management Association* (1995) 55 (8), 1064–1076.
- Paatero, P., Aalto, P., Picciotto, S., Bellander, T., Castaño, G., Cattani, G., Cyrus, J., Kulmala, M., Lanki, T., Nyberg, F., Pekkanen, J., Peters, A., Sunyer, J., Forastiere, F., 2005. Estimating time series of aerosol particle number concentrations in the five HEAPSS cities on the basis of measured air pollution and meteorological variables. *Atmospheric Environment* 39 (12), 2261–2273.
- Stafoggia, M., Picciotto, S., Forastiere, F., D'Ippoliti, D., Cattani, G., Marconi, A., Perucci, C.A., 2005. Inquinamento atmosferico ed eventi coronarici fatali e non fatali a Roma. *Epidemiologia e prevenzione* 29 (1), 40–47.
- Viviano, G., Ziemacki, G., Settimo, G., Cattani, G., Spartera, M., Catucci, F., Carbotti, G., 2005. La valutazione della qualità dell'aria in una zona urbana-industriale: il caso Taranto. *Epidemiologia e prevenzione* 29 (5-6 Suppl), 45–49.
- Pentti Patero, Pasi Aalto, Sally Picciotto, Tom Bellander, Gemma Castano, Giorgio Cattani et Al. Estimating Aerosol Particle number concentrations in the five HEAPSS cities on the basis of measured air pollution and meteorological variables. *Epidemiology*. 15(4):S39. 2004.
- Gabriele Accetta, Massimo Stafoggia, Sally Picciotto, Paola Michelozzi, Francesco Forastiere, Giorgio Cattani et Al. Association of estimated particle number concentration and PM10 with daily mortality and hospital admissions in a large Italian city. *Epidemiology*. 15(4):S53. 2004.
- Cattani, G., Cusano, M.C., Inglessis, M., Settimo, G., Stacchini, G., Ziemacki, G., Marconi, A., 2003. Misure di materiale particolato PM10 e PM2.5 a Roma: confronti indoor/outdoor. *Annali dell'Istituto superiore di sanità* 39 (3), 357–364.
- Lagorio, S., Forastiere, F., Pistelli, R., Iavarone, I., Fano, V., Incalzi, R.A., Basso, S., Benedetto, R.T., Della Corte, A.M., Fuso, L., Maiolo, C., Sammarro, S., Serra, M., Spadaro, S., Tramaglino, L.M., Cattani, G., Stacchini, G., Marconi, A., Ziemacki, G., Ostro, B., 2003. Inquinamento atmosferico e funzionalità cardiaca e respiratoria in tre gruppi di pazienti. *Annali dell'Istituto superiore di sanità* 39 (3), 395–404.
- Ziemacki, G., Cattani, G., Cusano, M.C., Stacchini, G., Marconi, A., 2003. Contenuto di metalli nelle varie frazioni dimensionali di materiale particolato. *Annali dell'Istituto superiore di sanità* 39 (3), 371–379.
- Diociaiuti, M., Balduzzi, M., Berardis, B. de, Cattani, G., Stacchini, G., Ziemacki, G., Marconi, A., Paoletti, L., 2001. The two PM(2.5) (fine) and PM(2.5-10) (coarse) fractions: evidence of different biological activity. *Environmental research* 86 (3), 254–262.
- Pistelli R., Lagorio S., Iavarone I., Michelozzi P, Fano, V., Cattani G., Stacchini, G., Marconi, A., Ziemacki, G., Basso, S., Tramaglino, L., Forastiere, F. Decreased oxygen saturation and increased heart rate associated with particulate air pollution (PM2.5) among COPD patients. *Epidemiology*: July 2000 - Volume 11 - Issue 4 - p S125.
- Marconi A, Menichini E, Ziemacki G, Cattani G, Stacchini G. Misure di materiale particolato PM10 e PM2.5 nell'atmosfera di Roma [Concentrations of PM10 and PM2.5 particulate material in the atmosphere of Rome]. *Ann Ist Super Sanita*. 2000;36(3):285-9. Italian. PMID: 11293297.