

CURRICULUM VITAE - DINH NGOC THUY VY

CONTACT

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EDUCATION

PhD thesis in the Environmental Science **09/2022-09/2025**
University of Grenoble Alpes (UGA, France)
Developing the methodology for identification PM sources and evaluate their health impact

Master degree in Earth and environmental sciences **09/2019-09/2022**
Grenoble Alpes University (Grenoble, France)

Bachelor degree in Environmental sciences **09/2012-09/2016**
Ton Duc Thang University (Ho Chi Minh city, Vietnam)

PROFESSIONAL EXPERIENCE

Doctoral contract (36 months) **09/2022 - 09/2025**
Institute of Environmental Geosciences (IGE), France.

Ingénieurs d'études (3 months contract) **05/2022-08/2022**
Institute of Environmental Geosciences (IGE), France.

Master program (6 months internship) **11/2017-04/2022**
Institute of Environmental Geosciences (IGE), France.

Master program (2 months internship) **06/2020-07/2020**
Institute of Environmental Geosciences (IGE), France.

Research assistant (9 months) **09/2017-05/2018**
Information Technology and GIS Development Centre

Civil servant (12 months) **10/2016-09/2017**
District People's Committee (Binh Phuoc, Vietnam)

Bachelor internship (6 months internship) **02/2016-07/2016**
Ton Duc Thang University (Ho Chi Minh city, Vietnam)

Bachelor internship (3 months internship) **11/2015-01/2016**
Asian Center for Water Research (CARE-RESCIF), Vietnam.

COMPETENCES

NUMERICAL

Extensive knowledge in Python, R languages
Positive Matric Factorization model for Air quality modelling

DATA ANALYSIS VISUALIZATION

Data analysis and statistical analysis with Python and R on large datasets
Mapping and spatial analysis with QGIS and ArcGIS

LANGUAGES

Vietnamese (native)
English (proficient, level B2)

French (proficient, level B2)

COURSES

1. Outils statistiques pour data science -22 - 33h
2. Project management and collaborative developments - Git, Gitlab and continuous integration - 6h
3. Introduction to data assimilation - 25h
4. Metals online measurement instrument training - 6h
5. Atmospheric Research Infrastructures - 4h

PUBLICATIONS

PUBLISHED ARTICLES

1. Borlaza, L., Ngoc Thuy, V. D., Grange, S., Socquet, S., Moussu, E., Mary, G., Favez, O., Hueglin, C., Jaffrezo, J. L., and Uzu, G.: Impact of COVID-19 lockdown on particulate matter oxidative potential at urban background versus traffic sites, *Environ. Sci. Atmos.*, <https://doi.org/10.1039/d3ea00013c>, 2023.
2. Dominutti, P. A., Borlaza, L., Sauvain, J. J., Ngoc Thuy, V. D., Houdier, S., Suarez, G., Jaffrezo, J. L., Tobin, S., Trébuchon, C., Socquet, S., Moussu, E., Mary, G., and Uzu, G.: Source apportionment of oxidative potential depends on the choice of the assay: insights into 5 protocols comparison and implications for mitigation measures, *Environ. Sci. Atmos.*, <https://doi.org/10.1039/d3ea00007a>, 2023.
3. Dinh, V., Thuy, N., Jaffrezo, J., Hough, I., Dominutti, P. A., Moreton, S., Gilles, G., Francony, F., Patron-anquez, A., Uzu, G., Aura, A., and Sud, A.: Unveiling the optimal regression model apportionment of the oxidative potential of PM for source, 1-29, 2024., <https://doi.org/10.5194/acp-24-7261-2024>.
4. Glojek, K., Dinh Ngoc Thuy, V., Weber, S., Uzu, G., Manousakas, M., Elazzouzi, R., Džepina, K., Darfeuil, S., Ginot, P., Jaffrezo, J. L., Žabkar, R., Turšič, J., Podkoritnik, A., and Močnik, G.: Annual variation of source contributions to PM10 and oxidative potential in a mountainous area with traffic, biomass burning, cement-plant and biogenic influences, *Environ. Int.*, 189, 108787, <https://doi.org/10.1016/j.envint.2024.108787>, 2024.
5. Borlaza-Lacoste, L., Mardoñez, V., Marsal, A., Hough, I., Dinh, N. T. V., Dominutti, P., Jaffrezo, J.-L., Alastuey, A., Besombes, J.-L., Močnik, G., Moreno, I., Velarde, F., Gardon, J., Cornejo, A., Andrade, M., Laj, P., and Uzu, G.: Oxidative potential of particulate matter and its association to respiratory health endpoints in high-altitude cities in Bolivia, *Environ. Res.*, 255, 119179, <https://doi.org/10.1016/j.envres.2024.119179>, 2024.
6. Dominutti, P. A., Mari, X., Jaffrezo, J. L., Dinh, V. T. N., Chifflet, S., Guigue, C., Guyomarc'h, L., Vu, C. T., Darfeuil, S., Ginot, P., Elazzouzi, R., Mhadhbi, T., Voiron, C., Martinot, P., and Uzu, G.: Disentangling fine particles (PM2.5) composition in Hanoi, Vietnam: Emission sources

and oxidative potential, *Sci. Total Environ.*, 923, <https://doi.org/10.1016/j.scitotenv.2024.171466>, 2024.

7. Amato, F., van Drooge, B. L., Jaffrezo, J. L., Favez, O., Colombi, C., Cuccia, E., Reche, C., Ippolito, F., Ridolfo, S., Lara, R., Uzu, G., Ngoc, T. V.D., Dominutti, P., Darfeuil, S., Albinet, A., Srivastava, D., Karanasiou, A., Lanzani, G., Alastuey, A., and Querol, X.: Aerosol source apportionment uncertainty linked to the choice of input chemical components, *Environ. Int.*, 184, 108441, <https://doi.org/10.1016/j.envint.2024.108441>, 2024.
8. Liu, Y., Jin, B., Zhang, X., Liu, X., Wang, T., Dinh, V. N. T., Jaffrezo, J.-L., Uzu, G., Dominutti, P., Darfeuil, S., and others: Source apportionment of PM10 particles in the urban atmosphere using PMF and LPO-XGBoost, *Environ. Res.*, 121659, 2025.

SUBMITTED ARTICLES

1. Liu, X., Zhangb, X., Wang, T., Jin, B., Dinh, V., Jaffrezo, J.-L., Uzu, G., Dominutti, P., Darfeuil, S., Favez, O., Conil, S., Marchand, N., Castillo, S., Rosa, J. D. de la, Stuart, G., Eleftheriadis, K., Diapouli, E., Manousakas, M., Nava, S., Alves, C., Monge, M., Reche, C., Harrison, R., Hopke, P., Alastuey, A., and Querol, X.: Source apportionment of PM10 based on offline chemical speciation data in urban Europe, *npj Climate and Atmospheric Science*, <https://doi.org/Under review>, 2025.
2. Vy Ngoc Thuy Dinh, Gaëlle Uzu, Pamela Dominutti, Stéphane Sauvage, Rhabira Elazzouzi, Sophie Darfeuil, Céline Voiron, Abdoulaye Samaké, Shouwen Zhang, Stéphane Socquet, Olivier Favez, and Jean-Luc Jaffrezo: Toolbox for accurate estimation and validation of PMF solutions in PM source apportionment, *Atmospheric Measurement Techniques*, Submitted 25 Apr 2025
3. Vy Ngoc Thuy Dinh, Favez O, Uzu G, Weber S, Dominutti PA, Jacob V, Houdier S, Darfeuil S, divers INERIS, divers Atmo Aura, and Jaffrezo JL (2023) Source apportionment and tendencies of PM components in Grenoble (France) over a 11-year period. TO be submitted to *Atmos. Chem. Phys. Disc.*

CONFERENCES

1. Ludovic Farnier, Vy Ngoc Thuy Dinh*, Pamela Dominutti, Gaëlle Uzu, Mélodie Chatain, Emmanuel Jantzen, Ghazzi Fayes, NGO Sylvie, GHOZZI Fayes, Jean-Luc Jaffrezo, (2025). The impact of the vehicular emission in different environment: A comparison of PM10 and PM2.5 source apportionment in urban background, traffic and train station sites. European aerosol conference. September 2025. Lecce, Italy. Oral
2. N.T.V. Dinh, I. Hough, O. Favez, J-L.Jaffrezo, G. Uzu, (2023). Comparison of 7 methods for the source apportionment of Oxidative Potential in atmospheric PM: a multi-campaign study. European aerosol conference. September 2023. Málaga, Spain. Poster

(*Presenting author)

SCIENTIFIC REPORT

1. Zhang, S., Samaké, A., Alleman, L., Favez, O., Dinh Ngoc, T. V., and Jaffrezo, J.-L.: Identification des sources des particules sur la zone littorale des Hauts de France et de la Normandie, LCSQA report (2024).
2. Kaspar Rudolf Daellenbach, Andrés Alastuey, Nikos Mihalopoulos, Gaëlle Uzu, Xavier Querol, Barend L. van Drooge, Marjan Savadkoobi, Meritxell Garcia-Marlès, Olivier Favez, Jean-Luc Jaffrezo & Vy Ngoc Thuy Dinh. Summary OP of PM, PM components and PM source contributions. Deliverable D30 (D4.9) RI urban project (2025).
3. Gaëlle Uzu, Kaspar Daellenbach, Vy Dinh Ngoc Thuy, Andre Prevot, Jean-Luc Jaffrezo. Guidance documents on measurements and modelling of novel air quality pollutants: Source apportionment of OP. Service tools RI urban project (2024).

CO-SUPERVISING

1. Vincent Soubeyrou. Student in Master 2 in Atmospheric Pollution, Climate Change, Health Impacts, Renewable Energies, Université Cote d'Azur. Working on long-term geochemical (2012-2022) evolution at the OPE, a rural site in France (internship from February to July 2023).
2. Appere Dennis. Student in Master 2 in Earth and environmental sciences, Université Grenoble Alpes. Working on long-term geochemical (2012-2023) evolution at the OPE, a rural site in France (internship from February to July 2024).
3. Ludovic Farnier. Student in Master 2 in Earth and environmental sciences, Université Grenoble Alpes. Working on chemical compositions, temporal evolution and health impact of ambient PM in Reims, France (internship from February to July 2025).

TEACHING

1. Internal training for the CHIANTI group on the use of the PMF method, 2023-2025 (10h)
2. Master 1, Earth and environmental sciences, Université Grenoble Alpes. Variability of climate and environment, 2022-2024 (12h)
3. Master 1, Earth and environmental sciences, Université Grenoble Alpes. Modelling of processes in the atmosphere, 2022-2024 (30h)