

Marialuisa Volta

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1880512/publications.pdf>

Version: 2024-02-01

114
papers

1,616
citations

279778

23
h-index

330122

37
g-index

118
all docs

118
docs citations

118
times ranked

1586
citing authors

#	ARTICLE	IF	CITATIONS
1	CityDelta: A model intercomparison study to explore the impact of emission reductions in European cities in 2010. <i>Atmospheric Environment</i> , 2007, 41, 189-207.	4.1	189
2	Overview of current regional and local scale air quality modelling practices: Assessment and planning tools in the EU. <i>Environmental Science and Policy</i> , 2016, 65, 13-21.	4.9	81
3	An integrated assessment tool to define effective air quality policies at regional scale. <i>Environmental Modelling and Software</i> , 2012, 38, 306-315.	4.5	78
4	COVID-19 incidence and mortality in Lombardy, Italy: An ecological study on the role of air pollution, meteorological factors, demographic and socioeconomic variables. <i>Environmental Research</i> , 2021, 195, 110777.	7.5	72
5	Surrogate models to compute optimal air quality planning policies at a regional scale. <i>Environmental Modelling and Software</i> , 2012, 34, 44-50.	4.5	65
6	Design and validation of a multiphase 3D model to simulate tropospheric pollution. <i>Science of the Total Environment</i> , 2008, 390, 166-176.	8.0	56
7	Neuro-fuzzy and neural network systems for air quality control. <i>Atmospheric Environment</i> , 2009, 43, 4811-4821.	4.1	54
8	POEM-PM: an emission model for secondary pollution control scenarios. <i>Environmental Modelling and Software</i> , 2006, 21, 320-329.	4.5	46
9	GAMES, a comprehensive gas aerosol modelling evaluation system. <i>Environmental Modelling and Software</i> , 2006, 21, 587-594.	4.5	43
10	A cokriging based approach to reconstruct air pollution maps, processing measurement station concentrations and deterministic model simulations. <i>Environmental Modelling and Software</i> , 2011, 26, 778-786.	4.5	43
11	Multi-objective analysis of ground-level ozone concentration control. <i>Journal of Environmental Management</i> , 2004, 71, 25-33.	7.8	39
12	Seasonal modelling assessment of ozone sensitivity to precursors in northern Italy. <i>Atmospheric Environment</i> , 2005, 39, 2795-2804.	4.1	38
13	A comparison of reanalysis techniques: Applying optimal interpolation and Ensemble Kalman Filtering to improve air quality monitoring at mesoscale. <i>Science of the Total Environment</i> , 2013, 458-460, 7-14.	8.0	38
14	A multi-objective nonlinear optimization approach to designing effective air quality control policies. <i>Automatica</i> , 2008, 44, 1632-1641.	5.0	35
15	A non-linear analysis to detect the origin of PM10 concentrations in Northern Italy. <i>Science of the Total Environment</i> , 2010, 409, 182-191.	8.0	33
16	MODIS and OMI satellite observations supporting air quality monitoring. <i>Radiation Protection Dosimetry</i> , 2009, 137, 280-287.	0.8	30
17	Exploring trade-offs between air pollutants through an Integrated Assessment Model. <i>Science of the Total Environment</i> , 2014, 481, 7-16.	8.0	30
18	POMI: a model inter-comparison exercise over the Po Valley. <i>Air Quality, Atmosphere and Health</i> , 2013, 6, 701-715.	3.3	29

#	ARTICLE	IF	CITATIONS
19	Modelling assessment of PM10 exposure control policies in Northern Italy. <i>Ecological Modelling</i> , 2008, 217, 219-229.	2.5	28
20	Optimal air quality policies and health: a multi-objective nonlinear approach. <i>Environmental Science and Pollution Research</i> , 2017, 24, 13687-13699.	5.3	28
21	Multi-criteria analysis for PM10 planning. <i>Atmospheric Environment</i> , 2009, 43, 4833-4842.	4.1	27
22	Sensitivity to spatial resolution of modeling systems designing air quality control policies. <i>Environmental Modelling and Software</i> , 2010, 25, 66-73.	4.5	24
23	A non-linear optimization programming model for air quality planning including co-benefits for GHG emissions. <i>Science of the Total Environment</i> , 2018, 621, 980-989.	8.0	24
24	Impact of reduced mass of light commercial vehicles on fuel consumption, CO2 emissions, air quality, and socio-economic costs. <i>Science of the Total Environment</i> , 2018, 613-614, 409-417.	8.0	24
25	Lazy Learning based surrogate models for air quality planning. <i>Environmental Modelling and Software</i> , 2016, 83, 47-57.	4.5	23
26	A decision framework for Integrated Assessment Modelling of air quality at regional and local scale. <i>Environmental Science and Policy</i> , 2016, 65, 3-12.	4.9	23
27	Selecting effective ozone exposure control policies solving a two-objective problem. <i>Ecological Modelling</i> , 2007, 204, 93-103.	2.5	22
28	Air quality integrated assessment modelling in the context of EU policy: A way forward. <i>Environmental Science and Policy</i> , 2016, 65, 22-28.	4.9	22
29	Applying integrated assessment methodologies to air quality plans: Two European cases. <i>Environmental Science and Policy</i> , 2016, 65, 29-38.	4.9	22
30	Modeling Pareto efficient PM10 control policies in Northern Italy to reduce health effects. <i>Atmospheric Environment</i> , 2009, 43, 3243-3248.	4.1	21
31	An integrated air quality forecast system for a metropolitan area. <i>Journal of Environmental Monitoring</i> , 2011, 13, 3437.	2.1	18
32	Environmental exposure and health effects in a highly polluted area of Northern Italy: a narrative review. <i>Environmental Science and Pollution Research</i> , 2019, 26, 4555-4569.	5.3	18
33	Artificial Neural Networks to reconstruct incomplete satellite data: application to the Mediterranean Sea Surface Temperature. <i>Nonlinear Processes in Geophysics</i> , 2008, 15, 61-70.	1.3	15
34	Analysis of the lockdown effects due to the COVID-19 on air pollution in Brescia (Lombardy). <i>Environmental Research</i> , 2022, 212, 113193.	7.5	15
35	Assessing the Economic and Environmental Sustainability of a Regional Air Quality Plan. <i>Sustainability</i> , 2018, 10, 3568.	3.2	14
36	Factor separation in air quality simulations. <i>Ecological Modelling</i> , 2008, 218, 383-392.	2.5	13

#	ARTICLE	IF	CITATIONS
37	A methodology for the evaluation of re-analyzed PM10 concentration fields: a case study over the PO Valley. <i>Air Quality, Atmosphere and Health</i> , 2015, 8, 533-544.	3.3	13
38	Evaluation of urban pollution abatement strategies by a photochemical dispersion model. <i>International Journal of Environment and Pollution</i> , 2000, 14, 616.	0.2	12
39	The impact of thermodynamic module in the CTM performances. <i>Atmospheric Environment</i> , 2012, 61, 652-660.	4.1	11
40	Applying the delta tool to support the Air Quality Directive: evaluation of the TCAM chemical transport model. <i>Air Quality, Atmosphere and Health</i> , 2014, 7, 335-346.	3.3	11
41	Integrating Saharan dust forecasts into a regional chemical transport model: A case study over Northern Italy. <i>Science of the Total Environment</i> , 2012, 417-418, 224-231.	8.0	10
42	A non linear model approach to define priority for air quality control. <i>IFAC-PapersOnLine</i> , 2018, 51, 210-215.	0.9	10
43	Comparing mesoscale chemistry-transport model and remote-sensed Aerosol Optical Depth. <i>Atmospheric Environment</i> , 2011, 45, 289-295.	4.1	8
44	Combining a Multi-Objective Approach and Multi-Criteria Decision Analysis to Include the Socio-Economic Dimension in an Air Quality Management Problem. <i>Atmosphere</i> , 2019, 10, 381.	2.3	8
45	Application to Northern Italy of a new modelling system for air quality planning: a comparison between different chemical mechanisms. <i>International Journal of Environment and Pollution</i> , 2003, 20, 85.	0.2	7
46	Minimizing external indirect health costs due to aerosol population exposure: A case study from Northern Italy. <i>Journal of Environmental Management</i> , 2011, 92, 3136-3142.	7.8	7
47	Low Emission Road Transport Scenarios: An Integrated Assessment of Energy Demand, Air Quality, GHG Emissions, and Costs. <i>IEEE Transactions on Automation Science and Engineering</i> , 2022, 19, 37-47.	5.2	7
48	Photochemical smog in South European cities. , 2003, , 185-222.		7
49	Defining a nonlinear control problem to reduce particulate matter population exposure. <i>Atmospheric Environment</i> , 2012, 55, 410-416.	4.1	6
50	Impact of pollutant emission reductions on summertime aerosol feedbacks: A case study over the PO valley. <i>Atmospheric Environment</i> , 2015, 122, 41-57.	4.1	6
51	A Framework for Integrated Assessment Modelling. <i>SpringerBriefs in Applied Sciences and Technology</i> , 2017, , 9-35.	0.4	6
52	Strengths and Weaknesses of the Current EU Situation. <i>SpringerBriefs in Applied Sciences and Technology</i> , 2017, , 69-83.	0.4	6
53	Neuro-fuzzy models for AIR quality planing: The case study of ozone in Northern Italy. , 2003, , .		6
54	Grey Box and Component Models to Forecast Ozone Episodes: A Comparison Study. <i>Environmental Monitoring and Assessment</i> , 2000, 65, 313-321.	2.7	5

#	ARTICLE	IF	CITATIONS
55	A methodology for seasonal photochemical model simulation assessment. International Journal of Environment and Pollution, 2005, 24, 11.	0.2	5
56	An integrated forecasting system for air quality control. , 2019, , .		5
57	A Short-Term Air Quality Control for PM10 Levels. Electronics (Switzerland), 2020, 9, 1409.	3.1	5
58	Application of Data Fusion Techniques to Improve Air Quality Forecast: A Case Study in the Northern Italy. Atmosphere, 2020, 11, 244.	2.3	5
59	Evaluating Seasonal Model Simulations of Ozone in Northern Italy. , 2004, , 171-178.		5
60	A System of Systems for the Optimal Allocation of Pollutant Monitoring Sensors. IEEE Systems Journal, 2022, 16, 6393-6400.	4.6	5
61	Application of REMSAD and GAMES modelling systems on a particulate matter and ozone episode in Milan metropolitan area. International Journal of Environment and Pollution, 2003, 20, 230.	0.2	4
62	Design and validation of a multiphase 3D model to simulate tropospheric pollution. , 0, , .		4
63	Evaluation by TCAM Model of Physical and Chemical Properties of Aerosol in Northern Italy. Environmental Modeling and Assessment, 2008, 13, 337-348.	2.2	4
64	PM10 Chemical Model Simulations Over Northern Italy in the Framework of the CityDelta Exercise. Environmental Modeling and Assessment, 2008, 13, 401-413.	2.2	4
65	A Wavenet-Based Virtual Sensor for PM10 Monitoring. Electronics (Switzerland), 2021, 10, 2111.	3.1	4
66	One-year-long runoff forecast by a single snowpack evaluation. Hydrological Processes, 2005, 19, 1419-1430.	2.6	3
67	Optimal interpolation to re-analyse PM10 concentration modelling simulations. , 2009, , .		3
68	Tropospheric profile of NO ₂ over the Po Valley measured with scan DOAS spectrometer. , 2009, , .		3
69	Evaluating economic and health impacts of active mobility through an integrated assessment model. IFAC-PapersOnLine, 2018, 51, 49-54.	0.9	3
70	Coupling European data and local air pollution models for integrated assessment. IFAC-PapersOnLine, 2018, 51, 67-72.	0.9	3
71	NONLINEAR SET MEMBERSHIP FORECAST OF URBAN OZONE PEAKS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 94-99.	0.4	2
72	Off-line Data Assimilation to provide the best estimate of tropospheric ozone concentrations by means of EnKF. , 2010, , .		2

#	ARTICLE	IF	CITATIONS
73	Combined use of space-borne observations of NO ₂ and regional CTM model for air quality monitoring in Northern Italy. International Journal of Environment and Pollution, 2011, 47, 158.	0.2	2
74	Source Apportionment and Integrated Assessment Modelling for Air Quality Planning. Electronics (Switzerland), 2020, 9, 1098.	3.1	2
75	Co-benefits of changing diet. A modelling assessment at the regional scale integrating social acceptability, environmental and health impacts. Science of the Total Environment, 2021, 756, 143708.	8.0	2
76	Assessment of Integrated Aerosol Sampling Techniques in Indoor, Confined and Outdoor Environments Characterized by Specific Emission Sources. Applied Sciences (Switzerland), 2021, 11, 4360.	2.5	2
77	Transboundary pollution and local emission impact in tropospheric ozone accumulation processes: control strategy modelling assessment. , 0, , .		1
78	Formalizing and solving the PM10 control problem. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 15511-15516.	0.4	1
79	A system of systems for air quality decision making. , 2012, , .		1
80	Uncertainty analysis in air quality control systems. , 2013, , .		1
81	Vertical Distribution of Lower Tropospheric NO_2 Derived From Diffuse Solar Radiation Measurements: A Geometrical Retrieval Approach. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 4846-4857.	6.3	1
82	Concentration Reduction Apportionment (CRA) Approach: a new methodology to define effective air quality plans. IFAC-PapersOnLine, 2017, 50, 3165-3170.	0.9	1
83	Air Quality Modelling to Support Decision-Making: Scenario and Optimization Approaches. Springer Proceedings in Complexity, 2016, , 161-165.	0.3	1
84	Current European AQ Planning at Regional and Local Scale. SpringerBriefs in Applied Sciences and Technology, 2017, , 37-68.	0.4	1
85	Air Quality in Europe: Today and Tomorrow. SpringerBriefs in Applied Sciences and Technology, 2017, , 1-8.	0.4	1
86	Vehicle fleet electrification: impacts on energy demand, air quality and GHG emissions. An integrated assessment approach. IFAC-PapersOnLine, 2020, 53, 16581-16586.	0.9	1
87	A Multi-Objective Problem to Select Optimal PM10 Control Policies. NATO Security Through Science Series C: Environmental Security, 2008, , 715-716.	0.1	1
88	Assessing the Impact of the Po Valley Air Quality Plan (Italy). Springer Proceedings in Complexity, 2021, , 187-193.	0.3	1
89	CAN A MODELLING SYSTEM BIAS AIR QUALITY POLICY SELECTION?. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 85-90.	0.4	0
90	A MODELLING SYSTEM TO ASSESS THE AEROSOL SENSITIVITY TO GAS EMISSIONS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 103-108.	0.4	0

#	ARTICLE	IF	CITATIONS
91	MODELLING EVALUATION OF EU ROAD TRAFFIC EMISSION STRATEGIES. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 179-184.	0.4	0
92	IDENTIFICATION OF SOURCE-RECEPTOR MODELS FOR SECONDARY TROPOSPHERIC POLLUTION CONTROL. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 762-767.	0.4	0
93	Chapter 2.3 Multi-objective analysis to control ozone exposure. Developments in Environmental Science, 2007, 6, 96-108.	0.5	0
94	TWO-OBJECTIVE PROBLEM FOR TROPOSPHERIC OZONE CONTROL. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 333-338.	0.4	0
95	Emission reduction strategies to control tropospheric ozone: a multi-objective optimization approach. , 2007, , .		0
96	Control of PM10 concentrations over a regional domain. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 224-229.	0.4	0
97	Sequential Feature selection in a multi-objective optimization problem. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 10553-10558.	0.4	0
98	Sensitivity analysis to precursor emissions of multi-objective air quality control policies. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 12922-12927.	0.4	0
99	Formalization and Solution of an Optimal Control Problem for Air Quality Planning. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 5296-5301.	0.4	0
100	APPRAISAL - Air Pollution Policies for Assesement of Integrated Strategies At regional and Local scales - FP7. Impact, 2016, 2016, 7-9.	0.1	0
101	Incremental Selection of Regional Air Quality Measures. IFAC-PapersOnLine, 2018, 51, 85-89.	0.9	0
102	Modelling Evaluation of Emission Scenario Impact in Northern Italy. Lecture Notes in Computer Science, 2008, , 377-384.	1.3	0
103	Sequential Quadratic Programming and Simulating Annealing techniques to calculate optimized Air Quality control policies. , 2009, , .		0
104	Assimilation of Chemical Ground Measurements in Air Quality Modeling. Lecture Notes in Computer Science, 2010, , 157-164.	1.3	0
105	Cost-Effective Plans to Mitigate Air Quality Effects on Human Health in Northern Italy. NATO Science for Peace and Security Series C: Environmental Security, 2011, , 693-697.	0.2	0
106	Scenario Analysis And Optimization Approach In Air Quality Planning: A Case Study In Northern Italy. , 2014, , .		0
107	Urban air quality plans in Europe: a review on applied methodologies. , 2014, , .		0
108	Two Illustrative Examples: Brussels and Porto. SpringerBriefs in Applied Sciences and Technology, 2017, , 85-104.	0.4	0

#	ARTICLE	IF	CITATIONS
109	Conclusions: A Way Forward. SpringerBriefs in Applied Sciences and Technology, 2017, , 105-110.	0.4	0
110	Application of a Comprehensive Integrated Assessment Tool for the Brussels Capital Region. Springer Proceedings in Complexity, 2018, , 275-280.	0.3	0
111	An Integrated Data-Driven/Data Assimilation Approach for the Forecast of PM10 Levels in Northern Italy. Springer Proceedings in Complexity, 2018, , 225-229.	0.3	0
112	A predictive control approach for air quality management. IFAC-PapersOnLine, 2020, 53, 16599-16604.	0.9	0
113	Modelling Evaluation of PM10 Exposure in Northern Italy in the Framework of CityDeltaIII Project. NATO Security Through Science Series C: Environmental Security, 2008, , 426-433.	0.1	0
114	Optimal Interpolation Based Data Fusion Techniques to Improve Deterministic Air Quality Forecast. Springer Proceedings in Complexity, 2021, , 145-150.	0.3	0