

# Arjo Segers

## List of Publications by Year in descending order

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Version: 2024-02-01

65  
papers

2,877  
citations

331670

21  
h-index

182427

51  
g-index

94  
all docs

94  
docs citations

94  
times ranked

4263  
citing authors

#	ARTICLE	IF	CITATIONS
1	Regional trends and drivers of the global methane budget. <i>Global Change Biology</i> , 2022, 28, 182-200.	9.5	56
2	Data assimilation of CrIS NH <sub>3</sub> satellite observations for improving spatiotemporal NH <sub>3</sub> distributions in LOTOS-EUROS. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 951-972.	4.9	5
3	A Knowledge-Aided Robust Ensemble Kalman Filter Algorithm for Non-Linear and Non-Gaussian Large Systems. <i>Frontiers in Applied Mathematics and Statistics</i> , 2022, 8, .	1.3	3
4	Inverse modeling of the 2021 spring super dust storms in East Asia. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 6393-6410.	4.9	16
5	The Role of Emission Sources and Atmospheric Sink in the Seasonal Cycle of CH <sub>4</sub> and <sup>13</sup> CH <sub>4</sub> : Analysis Based on the Atmospheric Chemistry Transport Model TM5. <i>Atmosphere</i> , 2022, 13, 888.	2.3	1
6	Order of magnitude wall time improvement of variational methane inversions by physical parallelization: a demonstration using TM5-4DVAR. <i>Geoscientific Model Development</i> , 2022, 15, 4555-4567.	3.6	1
7	Urban Air Quality Modeling Using Low-Cost Sensor Network and Data Assimilation in the Aburr�j Valley, Colombia. <i>Atmosphere</i> , 2021, 12, 91.	2.3	12
8	Sudden changes in nitrogen dioxide emissions over Greece due to lockdown after the outbreak of COVID-19. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 1759-1774.	4.9	32
9	An efficient ensemble Kalman Filter implementation via shrinkage covariance matrix estimation: exploiting prior knowledge. <i>Computational Geosciences</i> , 2021, 25, 985-1003.	2.4	7
10	Machine learning based bias correction for numerical chemical transport models. <i>Atmospheric Environment</i> , 2021, 248, 118022.	4.1	12
11	Evaluation of the LOTOS-EUROS NO <sub>2</sub> simulations using ground-based measurements and S5P/TROPOMI observations over Greece. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 5269-5288.	4.9	12
12	Changes in Power Plant NO <sub>x</sub> Emissions over Northwest Greece Using a Data Assimilation Technique. <i>Atmosphere</i> , 2021, 12, 900.	2.3	5
13	Position correction in dust storm forecasting using LOTOS-EUROS v2.1: grid-distorted data assimilation v1.0. <i>Geoscientific Model Development</i> , 2021, 14, 5607-5622.	3.6	5
14	A New Separation Methodology for the Maritime Sector Emissions over the Mediterranean and Black Sea Regions. <i>Atmosphere</i> , 2021, 12, 1478.	2.3	5
15	Estimating NO <sub>x</sub> LOTOS-EUROS CTM Emission Parameters over the Northwest of South America through 4DVar TROPOMI NO <sub>2</sub> Assimilation. <i>Atmosphere</i> , 2021, 12, 1633.	2.3	3
16	Sources of particulate-matter air pollution and its oxidative potential in Europe. <i>Nature</i> , 2020, 587, 414-419.	27.8	352
17	Forecasting PM <sub>10</sub> and PM <sub>2.5</sub> in the Aburr�j Valley (Medell�n, Colombia) via EnKF based data assimilation. <i>Atmospheric Environment</i> , 2020, 232, 117507.	4.1	21
18	Comparison of tropospheric NO <sub>2</sub> columns from MAX-DOAS retrievals and regional air quality model simulations. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 2795-2823.	4.9	12

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19	Benefit of ozone observations from Sentinel-5P and future Sentinel-4 missions on tropospheric composition. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 131-152.	3.1	12
20	Source backtracking for dust storm emission inversion using an adjoint method: case study of Northeast China. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 15207-15225.	4.9	10
21	Modeling atmospheric ammonia using agricultural emissions with improved spatial variability and temporal dynamics. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 16055-16087.	4.9	18
22	The Global Methane Budget 2000–2017. <i>Earth System Science Data</i> , 2020, 12, 1561-1623.	9.9	1,199
23	Impact of synthetic space-borne NO <sub>2</sub> observations from the Sentinel-4 and Sentinel-5P missions on tropospheric NO <sub>2</sub> analyses. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 12811-12833.	4.9	15
24	Machine learning for observation bias correction with application to dust storm data assimilation. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 10009-10026.	4.9	31
25	Influence of Atmospheric Transport on Estimates of Variability in the Global Methane Burden. <i>Geophysical Research Letters</i> , 2019, 46, 2302-2311.	4.0	16
26	Ensemble forecasts of air quality in eastern China – Part 2: Evaluation of the MarcoPolo–Panda prediction system, version 1. <i>Geoscientific Model Development</i> , 2019, 12, 1241-1266.	3.6	25
27	Dust Emission Inversion Using Himawari-8 AODs Over East Asia: An Extreme Dust Event in May 2017. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 446-467.	3.8	18
28	Ensemble forecasts of air quality in eastern China – Part 1: Model description and implementation of the MarcoPolo–Panda prediction system, version 1. <i>Geoscientific Model Development</i> , 2019, 12, 33-67.	3.6	39
29	Analysis of summer O <sub>3</sub> in the Madrid air basin with the LOTOS-EUROS chemical transport model. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 14211-14232.	4.9	21
30	Three-dimensional methane distribution simulated with FLEXPART 8-CTM-1.1 constrained with observation data. <i>Geoscientific Model Development</i> , 2018, 11, 4469-4487.	3.6	10
31	Comparison of mean age of air in five reanalyses using the BASCOE transport model. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 14715-14735.	4.9	26
32	Spatially varying parameter estimation for dust emissions using reduced-tangent-linearization 4DVar. <i>Atmospheric Environment</i> , 2018, 187, 358-373.	4.1	26
33	Evaluation Criteria on the Design for Assimilating Remote Sensing Data Using Variational Approaches. <i>Monthly Weather Review</i> , 2017, 145, 2165-2175.	1.4	2
34	Multi-model ensemble simulations of olive pollen distribution in Europe in 2014: current status and outlook. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 12341-12360.	4.9	25
35	Impact of spaceborne carbon monoxide observations from the S-5P platform on tropospheric composition analyses and forecasts. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 1081-1103.	4.9	16
36	Data assimilation for volcanic ash plumes using a satellite observational operator: a case study on the 2010 Eyjafjallajökull volcanic eruption. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 1187-1205.	4.9	26

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37	Accelerating volcanic ash data assimilation using a mask-state algorithm based on an ensemble Kalman filter: a case study with the LOTOS-EUROS model (version 1.10). <i>Geoscientific Model Development</i> , 2017, 10, 1751-1766.	3.6	7
38	Estimation of volcanic ash emissions through assimilating satellite data and ground-based observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 10,971.	3.3	14
39	Model-based aviation advice on distal volcanic ash clouds by assimilating aircraft in situ measurements. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 9189-9200.	4.9	10
40	Estimation of Volcanic Ash Emissions Using Trajectory-Based 4D-Var Data Assimilation. <i>Monthly Weather Review</i> , 2016, 144, 575-589.	1.4	26
41	Dynamic model evaluation for secondary inorganic aerosol and its precursors over Europe between 1990 and 2009. <i>Geoscientific Model Development</i> , 2015, 8, 1047-1070.	3.6	24
42	Simulation of tropospheric chemistry and aerosols with the climate model EC-Earth. <i>Geoscientific Model Development</i> , 2014, 7, 2435-2475.	3.6	62
43	Data Assimilation and Air Quality Forecasting. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2014, , 189-192.	0.2	2
44	Synergistic Use of LOTOS-EUROS and NO2 Tropospheric Columns to Evaluate the NOx Emission Trends Over Europe. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2014, , 239-245.	0.2	2
45	Sensitivity of PM Assimilation Results to Key Parameters in the Ensemble Kalman Filter. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2014, , 199-203.	0.2	0
46	Source Apportionment in the LOTOS-EUROS Air Quality Model. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2014, , 387-390.	0.2	0
47	Can We Explain the Observed Decrease in Secondary Inorganic Aerosol and Its Precursors Between 1990 and 2009 over Europe Using LOTOS-EUROS?. <i>Springer Proceedings in Complexity</i> , 2014, , 481-488.	0.3	0
48	The origin of ambient particulate matter concentrations in the Netherlands. <i>Atmospheric Environment</i> , 2013, 69, 289-303.	4.1	47
49	Source apportionment using LOTOS-EUROS: module description and evaluation. <i>Geoscientific Model Development</i> , 2013, 6, 721-733.	3.6	55
50	Evaluation of the meteorological forcing used for the Air Quality Model Evaluation International Initiative (AQMEII) air quality simulations. <i>Atmospheric Environment</i> , 2012, 53, 15-37.	4.1	111
51	Comparison of two data assimilation methods for assessing PM10 exceedances on the European scale. <i>Atmospheric Environment</i> , 2008, 42, 7122-7134.	4.1	77
52	Comparison of Data Assimilation Methods for Assessing PM10 Exceedances on the European Scale. <i>NATO Security Through Science Series C: Environmental Security</i> , 2008, , 278-286.	0.1	0
53	An Observing System Simulation Experiment (OSSE) for Aerosols. <i>NATO Security Through Science Series C: Environmental Security</i> , 2008, , 287-295.	0.1	1
54	A Hybrid Kalman Filter Algorithm for Large-Scale Atmospheric Chemistry Data Assimilation. <i>Monthly Weather Review</i> , 2007, 135, 140-151.	1.4	15

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55	Time series of the stratosphere-troposphere exchange of ozone simulated with reanalyzed and operational forecast data. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	13
56	Geophysical validation of SCIAMACHY Limb Ozone Profiles. <i>Atmospheric Chemistry and Physics</i> , 2006, 6, 197-209.	4.9	34
57	Validation of IFE-1.6 SCIAMACHY limb ozone profiles. <i>Atmospheric Chemistry and Physics</i> , 2005, 5, 3045-3052.	4.9	11
58	Ozone Forecasts of the Stratospheric Polar Vortexâ€“Splitting Event in September 2002. <i>Journals of the Atmospheric Sciences</i> , 2005, 62, 812-821.	1.7	20
59	Assimilation of GOME ozone profiles and a global chemistryâ€“transport model using a Kalman filter with anisotropic covariance. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2005, 131, 477-502.	2.7	40
60	The influence of data assimilation on the age of air calculated with a global chemistry-transport model using ECMWF wind fields. <i>Geophysical Research Letters</i> , 2004, 31, .	4.0	22
61	Modeling and prediction of environmental data in space and time using Kalman filtering. <i>Stochastic Environmental Research and Risk Assessment</i> , 2002, 16, 225-240.	4.0	40
62	On the Computation of Mass Fluxes for Eulerian Transport Models from Spectral Meteorological Fields. <i>Lecture Notes in Computer Science</i> , 2002, , 767-776.	1.3	22
63	Variance Reduced Ensemble Kalman Filtering. <i>Monthly Weather Review</i> , 2001, 129, 1718-1728.	1.4	111
64	Nonlinear Kalman filters for atmospheric chemistry models. <i>Geophysical Monograph Series</i> , 2000, , 139-146.	0.1	2
65	Data Assimilation as a Tool to Improve Chemical Transport Models Performance in Developing Countries. , 0, , .		0