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EnviroComp, Inc.

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Reno, NV 89511 (USA)

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EDUCATION AND TITLES

- Qualified Environmental Professional (QEP), Institute of Professional Environmental Practice (IPEP), currently transferred to the Board for Global EHS Credentialing (BGC) (<u>https://www.gobgc.org/</u>). Listed on the QEP Diplomate Public Roster: <u>https://gobgc.org/qep_roster/</u>. Certificate 2940029 (issued 2/1994) – To be recertified on 12/2024.
- Doctoral Degree in Physics, University of Padua, Italy (12/1970) (https://www.unipd.it/)
- Diploma of Maturita' Scientifica (Science Degree), Scientific Lyceum Ippolito Nievo, Padova, Italy (7/1965) (<u>https://www.liceonievo.it/</u>)

PROFESSIONAL EXPERIENCE

- *President*, EnviroComp Inc.¹ (4/2001 present) (<u>https://www.envirocomp.com</u>)
 - Adjunct Professor, Desert Research Institute, Atmospheric Sciences, Reno, NV (<u>https://www.dri.edu/atmospheric-sciences/</u>) (7/2023 present)
 - *Director and Founder*, Air Pollution Scientific Initiative (APSI) (4/2020 present) (<u>https://www.apsi.tech/index.html</u>)
 - President and Founder, EnviroComp Institute (10/1996 present) (<u>https://www.envirocomp.org</u>)
 - Project Leader, Comprehensive Air Modeling/Optimization System (CAMOS) (Since 2013) (<u>https://camos.co/</u>)
 - *Regional Coordinator* for the Institute of Professional Environmental Practice (IPEP²) in the San Francisco Bay Area (9/1997 2021) (<u>https://www.ipep.org</u>)
 - *Visiting Teacher,* Computational Mechanics and Wessex Institute of Technology, Southampton, UK (1980 present) (<u>https://www.wessex.ac.uk</u>). Currently:

¹ Formerly EnviroComp Consulting, Inc.

² The Institute of Professional Environmental Practice (IPEP) has been transferred to the Board for Global EHS Credentialing (BGC) (<u>https://www.gobgc.org/</u>).

- Adjunct Professor of Environmental Sciences at Wessex Institute of Technology (WIT), Ashurst, UK (<u>https://wessex.ac.uk/research/wit-staff/dr-paolo-zannetti</u>)
- Visiting Professor, Polytechnic University of Bari-Taranto, Italy (1999 2008) (<u>https://www.uniba.it/ateneo/sede-di-taranto</u>)
- *Peer-Reviewer,* Kuwait Institute of Scientific Research, Kuwait, Wessex Institute of Technology, Southampton, UK (2002-2012) (<u>https://www.kisr.edu.kw/</u>)
- Principal Scientist, Exponent, Inc., Menlo Park, CA (11/1991 4/2001) (<u>https://www.exponent.com</u>)
 - Instructor, University Extension, University of California, Berkeley (10/1992 7/1997) (<u>https://extension.berkeley.edu/</u>)
- Department Manager, AeroVironment, Inc., Pasadena/Monrovia, CA (10/1979 11/1991) (<u>https://www.aerovironment.com</u>)
 - *Consultant*, IBM Semea, Milan, Italy (1/1991 10/1991; on leave of absence from AeroVironment) (<u>https://www.ibm.com/planetwide/it/</u>)
 - Head, Environmental Sciences, IBM Scientific Center, Bergen, Norway, and Leader, Environmental Sciences Activities of IBM Europe (3/1990 – 12/1990; on leave of absence from AeroVironment). <u>DL</u>
 - Consultant, Research Center of the Italian National Electric Power Company (CRTN/ENEL), Milan, Italy (3/1984 – 10/1984; on leave of absence from AeroVironment) (<u>https://www.enel.com/en-GB/</u>)
 - Project Manager, Kuwait Institute for Scientific Research (KISR), Kuwait (2/1982 2/1984; on leave of absence from AeroVironment) (<u>www.kisr.edu.kw</u>)
- Researcher, IBM Scientific Center, Venice, Italy (8/1971 10/1979) (<u>https://www.ibm.com/planetwide/it/</u>)
 - Visiting Scientist, Department of Statistics, Stanford University, California (1/1978 3/1979; on assignment from IBM Italy) (<u>https://www-stat.stanford.edu/</u>)
 - Visiting Scientist, IBM Scientific Center, Palo Alto, CA (1/1978 3/1979; on assignment from IBM Italy) (<u>https://www.ibm.com/contact/us/en/</u>)
 - Assistant Professor, Department of Civil Engineering, University of Padua, Italy (1974 1977) (<u>https://www.unipd.it/</u>)
- Systems Analyst, UNIVAC/Sperry Rand, Milano, Italy (3/1971 7/1971) (<u>https://en.wikipedia.org/wiki/UNIVAC</u>)

EDITORIAL RESPONSIBILITY

- Member, Editorial Board, International Journal of Environmental Science and Technology. Springer International Publisher. 2013-present https://www.springer.com/environment/journal/13762?detailsPage=editorialBoard
- Member, Editorial Advisory Board (EAB) of Atmospheric Pollution Research (APR) Journal. 2011-present. <u>https://www.journals.elsevier.com/atmospheric-pollution-research</u>
- Editor, Book Series, "Environmental Sciences and Environmental Computing". Three published volumes. <u>https://envirocomp.org/books/esec.html</u>
- Editor and Co-Author, Book Series, "Air Quality Modeling Theories, Methodologies, Computational Techniques, and Available Databases and Software". Four published volumes, 2003-2010 <u>https://www.envirocomp.org/aqm</u>
- Editor, Book Series, "Environmental Modeling". Computational Mechanics Publications. Three published volumes. <u>https://www.witpress.com/978-1-85312-281-1.html</u>
- Founder and President, The EnviroComp Institute The International Institute of Environmental Sciences and Environmental Computing (since 1996). <u>https://www.envirocomp.org</u>
- Founder and Editor-in-Chief (1986 1993), quarterly journal *Environmental Software*, Computational Mechanics Publications and (since September 1991) Elsevier Applied Science; currently Founding Editor (journal was renamed *Environmental Modelling and Software*) https://www.journals.elsevier.com/environmental-modelling-and-software/
- Founder and Co-Director (until 1998), biennial ENVIROSOFT Conference Computer Techniques in Environmental Studies (conferences held every two years since 1986) https://www.wessex.ac.uk/
- Founder and Co-Director, first two AIR POLLUTION Conferences Computer Techniques in Environmental Studies (1993 – 1994); currently Member, Advisory Committee <u>https://www.wessex.ac.uk/15-conferences/air-pollution-2015.html</u>
- Associate Editor/Member, Editorial Board, *Atmospheric Environment*, Pergamon Press (1987 1999), now Elsevier. <u>https://www.journals.elsevier.com/atmospheric-environment/</u>
- Member, Editorial Board, *Ecological Modeling*, Elsevier Applied Science (1992 2007) <u>https://www.journals.elsevier.com/ecological-modelling/</u>
- Member, Editorial Board, *ENVIRONews*, FiatLux Publications (1993 1998)

Memberships

- Faculty Member, International Institute for Computational Engineering Mathematics (since 2016) https://computationalengineeringmathematics.com/cem/
- Member, International Scientific Advisory Committee, AIR POLLUTION Conference Cycle, Wessex Institute of Technology, UK (since 2000) <u>https://www.wessex.ac.uk/15-conferences/air-pollution-2015.html</u>
- Member, "SATURN Specialist Group", subproject of EUROTRAC-2 dealing with urban air pollution (1998-2000). <u>https://www.gsf.de/eurotrac</u>
- San Francisco Bay Area Regional Coordinator for the Institute of Professional Environmental Practice (IPEP³) (1997-2021). <u>https://www.ipep.org</u>
- Athens 2004 Committee (1997 2000). <u>https://www.olympic.org/athens-2004-summer-olympics</u>
- Reviewer Group, Center for Indoor Air Research (CIAR) (1995 1999)
- International Scientific Advisory Committee, Environmental Engineering and Management Conference, Barcelona, Spain (October 1998)
- International Scientific Advisory Committee, Environmental Engineering, Education and Training Conference (EEET96), Southampton, UK (April 1996)
- Scientific Advisory Board, International Congress on Modeling and Simulation (MODSIM 93 and MODSIM 95), Modeling and Simulation Society of Australia, Inc. <u>https://www.modsimworldconference.com/</u>
- International Federation for Information Processing (IFIP), Working Group WG 5.11 (Computers and Environment) (1992 – 1997). <u>https://www.ifip.org/homeintro.html</u>
- ISATA Programme Committee (1992 1994)
- Scientific Committee of the Technological Consortium THETIS (Venice, Italy) (1991) <u>https://www.thetis.it/thetis/environmental-engineering.html</u>

³ The Institute of Professional Environmental Practice (IPEP) has been transferred to the Board for Global EHS Credentialing (BGC) (<u>https://www.gobgc.org/</u>).

- Board of Directors, MONDOMETANO, RES Editrice srl (1989 1992)
- European Association for the Science of Air Pollution (EURASAP) (1987 1994) <u>https://www.eurasap.org/AboutEURASAP.html</u>
- EPA-ASRL pool for the review of U.S. Environmental Protection Agency publications (1987 1996) <u>https://www.epa.gov/</u>
- American Meteorological Society (AMS) (1978 1985) https://www.ametsoc.org/
- Air & Waste Management Association (A&WMA) (originally Air Pollution Control Association, APCA) (since 1978). Emeritus Member since 2013. <u>https://www.awma.org/Public</u>

MISCELLANEA

- Member, Accademia Italiana della Cucina (2015-2022) https://www.accademiaitalianacucina.it/
- Italian Citizen by birth; U.S. Citizen since 1989
- Languages: English, Italian, French (reading), plus understanding of Spanish

Honors

• Award from the Royal Scientific Society of Jordan (1/2019)



 Medal Awards "Awarded for Excellence", Department of Mathematical Sciences, The United States Military Academy, West Point, New York



• Medal award from Computational Mechanics, Ashurst, UK, in recognition of contribution to the development of Environmental Modeling (11/1994)



• Plaque award from the South Coast Air Quality Management District, in recognition of contribution to the Toxic Symposium at Caltech, Pasadena, CA (7/1986)



PUBLICATIONS (<u>**DL</u></u> indicates downloadable publications⁴)</u>**

<u>Books</u>

- B.26 Zannetti, P. (ed) (2010) Air Quality Modeling Theories, Methodologies, Computational Techniques, and Available Databases and Software, Vol. IV Advances and Updates, Book Series, The EnviroComp Institute and the Air & Waste Management Association (<u>https://www.envirocomp.org/aqm</u>)
- B.25 Zannetti, P. (ed) (2008) Air Quality Modeling Theories, Methodologies, Computational Techniques, and Available Databases and Software, Vol. III – Special Issues, Book Series, The EnviroComp Institute and the Air & Waste Management Association (<u>https://www.envirocomp.org/aqm</u>)
- B.24 Zannetti, P., S. Elliott, and D. Rouson (eds) (2007) Environmental Sciences and Environmental Computing, Vol. III, Electronic book (on CD-ROM), The EnviroComp Institute (<u>https://envirocomp.org/books/esec.html</u>)
- B.23 Zannetti, P., D. Al-Ajmi, and S. Al-Rashied (eds) (2007) Ambient Air Pollution, The Arab School for Science and Technology (ASST) and The EnviroComp Institute (<u>https://envirocomp.org/asst</u>)
- B.22 Zannetti, P. (ed) (2005) Air Quality Modeling Theories, Methodologies, Computational Techniques, and Available Databases and Software, Vol. II – Advanced Topics, Book Series, The EnviroComp Institute and the Air & Waste Management Association (<u>https://www.envirocomp.org/aqm</u>)

⁴ Downloadable online at <u>https://www.envirocomp.com/zcv/zannetti.pdf</u>

- B.21 Zannetti, P. (ed) (2004) Environmental Sciences and Environmental Computing, Vol. II, Electronic book (on CD-ROM), The EnviroComp Institute (https://envirocomp.org/books/esec.html)
- B.20 Zannetti, P. (ed) (2003) Air Quality Modeling Theories, Methodologies, Computational Techniques, and Available Databases and Software, Vol. I – Fundamentals, Book Series The EnviroComp Institute and the Air & Waste Management Association (https://www.envirocomp.org/aqm)
- B.19 Brebbia, C.A. and P. Zannetti (eds) (2002) Development and Application of Computer Techniques to Environmental Studies IX, WIT Press (<u>https://www.witpress.com/</u>)
- B.18 Ibarra-Berastegi, G., C.A. Brebbia, and P. Zannetti (eds) (2000) Development and Application of Computer Techniques to Environmental Studies VIII, WIT Press (<u>https://www.witpress.com</u>)
- B.17 Zannetti, P. and Y.Q. Zhang (eds) (1998) Environmental Sciences and Environmental Computing, Vol. I, Electronic book (on CD-ROM), FiatLux Publications and EnviroComp Institute (<u>https://envirocomp.org/books/esec.html</u>)
- B.16 Pepper, D.W., C.A. Brebbia, and P. Zannetti (eds) (1998) Development and Application of Computer Techniques to Environmental Studies, Proceedings, ENVIROSOFT 98 Conference, Las Vegas, NV, November, WIT Press – Computational Mechanics Publications, Southampton (https://www.witpress.com/)
- B.15 Zannetti, P. (ed) (1996) Environmental Modeling Computer Methods and Software for Simulating Environmental Pollution and its Adverse Effects – Vol. III, Computational Mechanics Publications, Southampton (<u>https://www.witpress.com/</u>)
- B.14 Zannetti, P. and C. Brebbia (eds) (1996) Development and Application of Computer Techniques to Environmental Studies VI, Proceedings, ENVIROSOFT 96 Conference, Como, Italy, September, Computational Mechanics Publications, Southampton (<u>https://www.witpress.com/</u>)
- B.13 Zannetti, P. (ed) (1994) Pollution Modeling, Vol. I, Proceedings, ENVIROSOFT 94 Conference, San Francisco, CA, November, Computational Mechanics Publications, Southampton (https://www.witpress.com/)
- B.12 Zannetti, P. (ed) (1994) Environmental Systems, Vol. II, Proceedings, ENVIROSOFT 94 Conference, San Francisco, CA, November, Computational Mechanics Publications, Southampton (<u>https://www.witpress.com/</u>)
- B.11 Baldasano, J.M., C.A. Brebbia, H. Power, and P. Zannetti (eds) (1994) Computer Simulation, Vol. I, Proceedings, Second International AIR POLLUTION Conference, Barcelona, Spain, September 1994, Computational Mechanics Publications, Southampton (<u>https://www.witpress.com/</u>)

- B.10 Baldasano, J.M., C.A. Brebbia, H. Power, and P. Zannetti (eds) (1994) Pollution Control and Monitoring, Vol. II, Proceedings, Second International AIR POLLUTION Conference, Barcelona, Spain, September 1994, Computational Mechanics Publications, Southampton (<u>https://www.witpress.com/</u>)
- B.9 Zannetti, P. (ed) (1994) Environmental Modeling Computer Methods and Software for Simulating Environmental Pollution and its Adverse Effects – Vol. II, Computational Mechanics Publications, Southampton (<u>https://www.witpress.com/</u>)
- B.8 Zannetti, P., C.A. Brebbia, J.E. Garcia Gardea, and G. Ayala Milian (eds) (1993) Air Pollution, First International Conference on Air Pollution, Monterrey, Mexico, February, Computational Mechanics Publications, Southampton, and Elsevier Science Publishers, London (<u>https://www.witpress.com/</u>)
- B.7 Zannetti, P. (ed) (1993) Environmental Modeling Computer Methods and Software for Simulating Environmental Pollution and its Adverse Effects – Vol. I, Computational Mechanics Publications, Southampton, and Elsevier Science Publishers, London (<u>https://www.witpress.com/</u>)
- B.6 Zannetti, P. (ed) (1992) Computer Techniques in Environmental Studies IV, Proceedings, Fourth International Conference ENVIROSOFT 92, Computational Mechanics Publications, Southampton, and Elsevier Applied Science, London (<u>https://www.witpress.com/</u>)
- B.5 Melli, P. and P. Zannetti (eds) (1992) Environmental Modeling, Computational Mechanics Publications, Southampton, and Elsevier Applied Science, London (<u>https://www.witpress.com/</u>)
- B.4 Zannetti, P. (1990) Air Pollution Modeling Theories, Computational Methods and Available Software, Computational Mechanics Publications, Southampton, and Van Nostrand Reinhold, New York, 450 pp (<u>https://link.springer.com/book/10.1007%2F978-1-4757-4465-1</u>) DL
- B.3 Zannetti, P. (ed) (1990) Computer Techniques in Environmental Studies III, Proceedings, Third International Conference ENVIROSOFT 90, Computational Mechanics Publications, Southampton, UK (<u>https://www.witpress.com/</u>)
- B.2 Zannetti, P. (ed) (1988) Computer Techniques in Environmental Studies, ENVIROSOFT 88, Second International Conference, Porto Carras, Greece, September, Ashurst, UK, Computational Mechanics Publications (<u>https://www.witpress.com/</u>)
- B.1 Zannetti, P. (ed) (1986) ENVIROSOFT 86, Proceedings, International Conference on Development and Application of Computer Techniques to Environmental Studies, Los Angeles, CA, USA, November 1986, Ashurst, UK, Computational Mechanics Publications (<u>https://www.witpress.com/</u>)

Book Chapters

- BC.18 Zannetti, P. (2022) Simulation Modeling of COVID-19: Global Spread and Short-Range Contamination Scenarios. Chapter 1, <u>United States Military Academy Special</u> <u>Colloquium on Computational Engineering Mathematics 2020-2021</u>. Editors: T. Hromadka and P. Goethals
- BC.17 Bianconi, R., Bellasio, R. and P. Zannetti (2022) A Global Modeling System (GMS) for High Resolution Meteorological and Air Pollution Forecasts – Framework and Prototype. Chapter 16, <u>United States Military Academy Special Colloquium on Computational</u> <u>Engineering Mathematics 2020-2021</u>. Editors: T. Hromadka and P. Goethals
- BC.16 Zannetti, P. (2010) Air Quality Modeling Resources on the Web An Update, Chapter 27, Air Quality Modeling Theories, Methodologies, Computational Techniques, and Available Databases and Software, Vol. IV Advances and Updates, P. Zannetti (ed), The EnviroComp Institute and the Air & Waste Management Association (https://www.envirocomp.org/aqm) DL
- BC.15 Zannetti, P. (2008) Air Quality Modeling Resources on the Web, Chapter 27, Air Quality Modeling Theories, Methodologies, Computational Techniques, and Available Databases and Software, Vol. III Special Issues, P. Zannetti (ed), The EnviroComp Institute and the Air & Waste Management Association (<u>https://www.envirocomp.org/aqm</u>) <u>DL</u>
- BC.14 Freedman, F. and P. Zannetti (2007) Global Warming and Climate Change: State of the Science, Chapter 5, Ambient Air Pollution, P. Zannetti, D. Al-Ajmi, and S. Al-Rashied (eds), The Arab School for Science and Technology (ASST) and The EnviroComp Institute (<u>https://www.envirocomp.org/</u>); also Chapter 10, Environmental Sciences and Environmental Computing, Vol. III, P. Zannetti, S. Elliott, and D. Rouson (eds), The EnviroComp Institute (<u>https://www.envirocomp.org/</u>) <u>DL</u>
- BC.13 Daly, A. and P. Zannetti (2007) Air Pollution Modeling An Overview, Chapter 2, Ambient Air Pollution, P. Zannetti, D. Al-Ajmi, and S. Al-Rashied (eds), The Arab School for Science and Technology (ASST) and The EnviroComp Institute (<u>https://www.envirocomp.org/asst</u>) <u>DL</u>
- BC.12 Daly, A. and P. Zannetti (2007) An Introduction to Air Pollution Definitions, Classifications, and History, Chapter 1, Ambient Air Pollution, P. Zannetti, D. Al-Ajmi, and S. Al-Rashied (eds), The Arab School for Science and Technology (ASST) and The EnviroComp Institute (<u>https://www.envirocomp.org/asst</u>) <u>DL</u>
- BC.11 Byun, D.W., A. Lacser, R. Yamartino, and P. Zannetti (2005) Eulerian Dispersion Models, Chapter 10, Air Quality Modeling – Theories, Methodologies, Computational Techniques, and Available Databases and Software, Vol. I – Fundamentals, P. Zannetti (ed), The EnviroComp Institute and the Air & Waste Management Association (<u>https://www.envirocomp.org/aqm</u>) DL

- BC.10 Zannetti, P. (2004) Air Pollution Dispersion Modeling, Section 16.6, The CRC Handbook of Mechanical Engineering, Second Edition, F. Kreith and D.Y. Goswami (eds), CRC Press (<u>https://www.crcpress.com/product/isbn/9780849308666</u>) <u>DL</u>
- BC.9 Calamari, D., K. Jones, K Kannan, A. Lecloux, M. Olsson, M. Thurman, and P. Zannetti (2000) Monitoring as an Indicator of Persistence and Long-Range Transport, Chapter 6, Evaluation of Persistence and Long-Range Transport of Organic Chemicals in the Environment, G. Klecka, et al. (eds), SETAC Press (<u>https://www.setac.org/</u>) <u>DL</u>
- BC.8A Zannetti, P. (1998) Today's Debate on Global Climate Change: Searching for the Scientific Truth. Chapter 5 of Environmental Sciences and Environmental Computing, Vol I, Edited by P. Zannetti and Y. Q. Zhang, EnviroComp Institute (<u>https://www.envirocomp.org</u>) DL
- BC.8 Zannetti, P. (1998) Air Pollution Dispersion Modeling, Section 16.6, The CRC Handbook of Mechanical Engineering, F. Kreith (ed), CRC Press (<u>https://www.crcpress.com/</u>) <u>DL</u>
- BC.7 Zannetti, P. (1996) Environmental Modeling: Today and Tomorrow, Chapter 1, Environmental Modeling – Computer Methods and Software for Simulating Environmental Pollution and its Adverse Effects – Vol. III, P. Zannetti (ed), Computational Mechanics Publications, Southampton (<u>https://www.witpress.com/</u>) <u>DL</u>
- BC.6 Zannetti, P. (1994) Introduction to Environmental Modeling, Chapter 1, Environmental Modeling – Computer Methods and Software for Simulating Environmental Pollution and its Adverse Effects – Vol. II, P. Zannetti (ed), Computational Mechanics Publications, Southampton (<u>https://www.witpress.com/</u>) <u>DL</u>
- BC.5 Zannetti, P. (1993) Introduction and Overview, Chapter 1, Environmental Modeling Computer Methods and Software for Simulating Environmental Pollution and its Adverse Effects – Vol. I, P. Zannetti (ed), Computational Mechanics Publications, Southampton, and Elsevier Science Publishers, London (<u>https://www.witpress.com/</u>) <u>DL</u>
- BC.4 Zannetti, P. (1993) Numerical Simulation Modeling of Air Pollution: An Overview, Section of Ecological Physical Chemistry, L. Bonati, U. Cosentino, M. Lasagni, G. Moro, D. Pitea, and A. Schiraldi (eds), Elsevier Science Publishers, London; also Air Pollution, P. Zannetti, C.A. Brebbia, J.E. Garcia Gardea, and G. Ayala Milian (eds), First International Conference on Air Pollution, Monterrey, Mexico, February, Computational Mechanics Publications, Southampton, and Elsevier Science Publishers, London (<u>https://www.witpress.com/</u>) DL
- BC.3 Zannetti, P. (1992) Particle Modeling and its Application for Simulating Air Pollution Phenomena, Chapter 11, Environmental Modeling, P. Melli and P. Zannetti (eds) Computational Mechanics Publications, Southampton, and Elsevier Applied Science, London (<u>https://www.witpress.com/</u>) <u>DL</u>
- BC.2 Zannetti, P. (1989) Simulating Short-Term, Short-Range Air Quality Dispersion Phenomena, Chapter V, Library of Environmental Control Technology, Vol. 2, Air Pollution Control, P.N. Cheremisinoff (ed), Gulf Publishing, Houston, TX <u>DL</u>

BC.1 Zannetti, P., G. Carboni, and A. Ceriani (1986) AVACTA II model simulations of worstcase air pollution scenarios in Northern Italy, Section of Air Pollution Modeling and Its Application, C. De Wispelaere, F.A. Schiermeider, and N.V. Gillani (eds), Plenum Press, New York, NY <u>DL</u>

Journal Articles

- JA.28 Bellasio, R., R. Bianconi, S. Mosca, and P. Zannetti (2018) Incorporation of Numerical Plume Rise Algorithms in the Lagrangian Particle Model LAPMOD and Validation against the Indianapolis and Kincaid Datasets. Atmosphere 9(10), 404. doi:10.3390/atmos9100404. DL
- JA.27 Bellasio, R., R. Bianconi, S. Mosca, and P. Zannetti (2017) Formulation of the Lagrangian particle model LAPMOD and its evaluation against Kincaid SF₆ and SO₂ datasets. Atmospheric Environment **163** (2017) 87-98, Elsevier Ltd. <u>DL</u>
- JA.26 Zannetti, P., A. D. Daly, and F. R. Freedman (2015) Dispersion Modeling of Particulate Matter Containing Hexavalent Chromium during High Winds in Southern Iraq. Journal of the Air & Waste Management Association, **65**(2):171–185. <u>DL</u>
- JA.25 Daly, A., P. Zannetti, and T. Echekki (2013) A Combination of Fire and Dispersion Modeling Techniques for Simulating A Warehouse Fire. Int. J. of Safety and Security Eng., Vol. 2, No. 4 (2012) 368–380. DL
- JA.24 Liberti, L., M. Notarnicola, R. Primerano, and P. Zannetti (2006) Air Pollution from a Large Steel Factory: Polycyclic Aromatic Hydrocarbon Emissions from Coke-Oven Batteries, ISSN 1047-3289, Journal of the Air & Waste Management Association, 56:255–260 DL
- JA.23 Zannetti, P. (1996) Modeling Danger Computer Simulations Analyze Pollution Effects, Forecast Problems, Contingency Magazine, (March/April):73-75 <u>DL</u>
- JA.22 Boybeyi Z., S. Raman, and P. Zannetti (1995) Numerical Investigation of Possible Role of Local Meteorology in Bhopal Gas Accident, Atmospheric Environment (Urban Atmosphere), 29(4):479-496 DL
- JA.21 Zannetti, P., I. Tombach, S. Cvencek, and W. Balson (1993) Calculation of visual range improvements from SO₂ emission controls – II: An application to the Eastern United States, Atmospheric Environment, **27A**:1479-1490 <u>DL</u>
- JA.20 Zannetti, P., I. Tombach, and W. Balson (1990) Calculation of visual range improvements from SO₂ emission controls I: Semi-empirical methodology, Atmospheric Environment, 24A:2361-2368 <u>DL</u>
- JA.19 Zannetti, P., I.H. Tombach, and S. Cvencek (1989) An analysis of visual range in the Eastern United States under different meteorological regimes, Journal of the Air & Waste Management Association, **39**:200-203 <u>DL</u>

- JA.18 Brusasca, G., G. Tinarelli, D. Anfossi, and P. Zannetti (1987) Particle modeling simulation of atmospheric dispersion using the MC-LAGPAR package, Environmental Software, 2(3):15I-158 <u>DL</u>
- JA.17 Zannetti, P. (1986b) A new mixed segment-puff approach for dispersion modeling, Atmospheric Environment, **20**(6):1121-1130 <u>DL</u>
- JA.16 Zannetti, P. (1986a) Monte-Carlo simulation of auto- and cross-correlated turbulent velocity fluctuations (MC-LAGPAR II model), Environmental Software, **1**(1):26-30 <u>DL</u>
- JA.15 Tirabassi, T., M. Tagliazucca, and P. Zannetti (1986) KAPPA-G, a non-Gaussian plume dispersion model: description and evaluation against tracer measurements, Journal of the Air Pollution Control Association, **36**:592-596 <u>DL</u>
- JA.14 Zannetti, P. (1984) New Monte Carlo scheme for simulating Lagrangian particle diffusion with wind shear effects, Applied Mathematical Modeling, **8**:188-192 <u>DL</u>
- JA.13 Zannetti, P. (1982b) II "Controlled Trading" negli Stati Uniti [Controlled Trading of pollution emissions in the US], Note di Informatica, 1:71-83, IBM Italia; also in Inquinamento, 25(7/8):61-64, Etas Kompass, 1983 <u>DL</u>
- JA.12 Zannetti, P. (1981b) Scommessa con il sole [Solar Challenger], Scienza e Vita Nuova, **3**(7):16-21, Rusconi Editore <u>DL</u>
- JA.11 Zannetti, P. (1982a) E' la anidride carbonica nella atmosfera uno dei futuri maggiori pericoli per l' umanita'? [Is the increase of atmospheric CO₂ one of the most serious future problems for the human beings?], Inquinamento, **24**(3):59-62, Etas Kompass <u>DL</u>
- JA.10 Zannetti, P. (1981a) An improved puff algorithm for plume dispersion simulation, J Applied Meteorology, **20**(10):1203-1211. <u>DL</u>
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Technical Reports

Dr. Zannetti has authored and co-authored hundreds of internally peer-reviewed technical reports while working for IBM Scientific Centers, AeroVironment, Inc., the Kuwait Institute of Scientific Research, CRTN/ENEL, Exponent, Inc., EnviroComp Consulting, Inc., and EnviroComp, Inc. Most of these reports have remained confidential or were prepared for litigation cases and have not been published. A few selected reports are listed below:

- Zannetti P. (2019): Niemi et al. v. Northwest Cascade, Inc., et al. Expert Report. Analyses related to SAMANTHA NIEMI; CHRIS SCHNEIDER; STACEY JACKSON SR.; GANNA SHTOGRYN, individuals, Plaintiffs, V. NORTHWEST CASCADE, INC., a Washington corporation, dba HONEY BUCKET and FLOHAWKS; NWC #5 Partnership LLP, a Washington limited liability partnership, Defendants. Superior Court State of WA for Pierce County No. 16-2-11216-7. DL
- Zannetti, P. (2011): Atmospheric Deposition Modeling of Oust®-Contaminated Dust in Southern Idaho during 1999-2001. Analyses Related to: Adams, et al., v the United States of America, Case No.: CIV 03-0049-E-BLW, United States District Court, District of Idaho. Project: EC-11-001, Report: 11-03-25. <u>DL</u>
- EnviroComp Consulting, Inc (2006) Air Quality Issues in the Beverly Hills High School Area, Beverly Hills, CA. Project: EC-04-004, Report: 06-03-10. <u>DL</u>
- Zannetti, P., B. Bruegge, D.A. Hansen, N. Lincoln, W.A. Lyons, D.A. Moon, R.E. Morris, A.G. Russell (1996) Framework Design - Design and Development of a Comprehensive Modeling System (CMS) for Air Pollution. FaAA Report SF-R-96-02-21 prepared for the Electric Power Research Institute. [Also published as Zannetti et al. (1996): Design of a Framework for the Development of a Comprehensive Modeling System for Air Pollution. EPRI TR-106852, WO4311-02, Final Report, September 1996]. DL

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- Zannetti, P., G. Carboni, R. Lewis and L. Matamala (1986): AVACTA II User's guide, Release 3.1. AeroVironment Report AV-R-86/530. <u>DL</u>
- Zannetti, P., M. Sudairawi, N. Al-Madani and N. El-Karmi (1983): Air Pollution Dispersion and Prediction Model for Shuaiba Industrial Area. Prepared for the Shuaiba Area Authority, Kuwait. Kuwait Institute for Scientific Research, Document KISR 1090A, 5 Volumes:
 - Volume I Executive Summary <u>DL</u>
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 - Volume III Special Studies and Appendices <u>DL</u>
 - Volume IV Software User's Manuals <u>DL</u>
 - Volume V Data and Program Listings <u>DL</u>

Short Communications

Dr. Zannetti has published dozens of short communications including:

- Zannetti, P. (2012) Preface to "Venice Shall Rise Again" by G. Gambolati and P. Teatini, The EnviroComp Institute (<u>https://www.envirocomp.org/Venice</u>) <u>DL</u>
- Zannetti, P. (2007) Preface to "Environmental Modeling Using MATLAB" by E. Holzbecher, Springer, 2007 <u>DL</u>

Other Publishing/Editorial Activities

- Since the mid-1990s, most of Dr. Zannetti's editorial/publishing work has been performed as part of the activities of his non-profit EnviroComp Institute (<u>https://envirocomp.org/activities.html</u>).
 In particular, he promoted and directed the publication a unique, new-generation series of environmental book in electronic format:
 - Venice Shall Rise Again Engineered Uplift of Venice through Seawater Injection
 - <u>Air Quality Modeling book series</u>
 - Environmental Sciences and Environmental Computing book series

- Ambient Air Pollution
- Groundwater Modeling: Computer Simulation of Groundwater Flow and Pollution
- Urban Air Pollution: Athens 2004 Air Quality
- EnviroNews, a bimonthly environmental newsletter, FiatLux Publications (1993 2000)

UNPUBLISHED WORKS

Doctoral Degree Thesis

• Zannetti, P. (1970) Riconoscimento a mezzo di elaboratore elettronico di caratteri numerici manoscritti [Computer pattern recognition of handwritten digits], Relatori: Profs. L. Mezzetti and D. Toniolo, University of Padua, Faculty of Science (Physics)

Poster Paper

• Zannetti, P. (1986) AVACTA II: a new Gaussian dynamic model for the simulation of atmospheric dispersion, transformation and deposition phenomena, Poster paper, WMO Conference on Air Pollution Modeling and Its Application, Leningrad, USSR, May 1986

Course Materials

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- C.37 Zannetti, P. (2013) Fundamentals of Air Quality Modeling. 1-Day Course given at A&WMA Annual Meeting, Chicago, IL, 23 June 2013. Outline <u>DL</u>
- C.36 Zannetti, P. and L. Delle Monache (2012) AIR QUALITY Management, Modeling, and Forecast. September 25-27, 2012, Wessex Institute of Technology, Ashurst, UK
- C.35 Zannetti, P. (2011) Air Quality Management Goals, Regulations, Implementations, and Available Software Tools, May 4-5, 2011, Wessex Institute of Technology, Ashurst, UK. Lessons: Introduction to Air Pollution Issues, Scientific Understanding of Air Pollution Phenomena, Air Quality Management in the US, Air Quality Management in Europe, Health Risks and Other Adverse Effects of Air Pollution, Emergency Preparedness and Response - Case Studies, Air Quality Modeling and Software, Air Quality Management Tools and Software
- C.34 Zannetti (2006) Introduction to Air Pollution Modeling, Organized by Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton, UK, Topics: Air Pollution Problems and Phenomena, Air Pollution Meteorology, The Gaussian Plume Model, Segmented and Puff Model, Eulerian Models, Lagrangian Particle Models, Atmospheric Chemistry and Deposition, Long-range and Global Modeling, 25-26 May 2006
- C.33 Zannetti (2005) Workshops on Ambient Air Pollution: 1) Introduction to Air Pollution,
 2) Introduction to Air Pollution Modeling, 3A) Air Pollution Case Studies, and 3B) Global Issues, The Kuwait Foundation for the Advancement of Science (KFAS), Kuwait, 5-9 February 2005
- C.32 Zannetti, P. (2004) Fluid Pollution Modeling, Engineering Faculty, Taranto, Italy, October 2004
- C.31 Zannetti, P. (2003) Fluid Pollution Modeling, Engineering Faculty, Taranto, Italy, May 2003
- C.30 Zannetti, P. (2002) Fluid Pollution Modeling, Engineering Faculty, Taranto, Italy, September 2002
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- C.28 Zannetti, P. (2001) Accidental Chemical Releases Accident Reconstruction, Air Dispersion Modeling, Source Identification, and Allocation of Responsibility, Environmental Litigation: Advanced Forensics and Legal Strategies, San Francisco, CA, April 4-5, 2001
- C.27 Zannetti, P. (2000) Fluid Pollution Modeling, Engineering Faculty, Taranto, Italy, October 9-12, 2000
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- C.25 Zannetti, P. (1998) Air Pollution Modeling, Wessex Institute of Technology, Southampton, UK, April 1998
- C.24 Zannetti, P. (1997) Air Dispersion Modeling and Meteorology, University of California, Berkeley Extension, July 1997
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- C.17 Zannetti, P. (1993) Introduction to Air Pollution Modeling, Instituto Tecnologico y de Estudios Superiores de Monterrey, Mexico, 15 February 1993
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- C.14 Zannetti, P. (1990) Computer Simulation using Particle Modeling, Computational Mechanics Institute, Ashurst, Southampton, UK, November 1990
- C.13 Zannetti, P. (1990) Air Pollution Modeling, Department of Meteorology, University of Bergen, Norway, Fall 1990
- C.12 Zannetti, P. (1989) Air Quality Modeling and Software, Computational Mechanics Institute, Ashurst, Southampton, UK, April 1989
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- C.10 Pielke, R., J. Seinfeld, I. Tombach, and P. Zannetti (1988) A Short Course on Air Pollution: Simulation Modeling and Measurement Strategies, Monrovia, CA, March 1988

- C.9 Pielke, R., J. Seinfeld, I. Tombach, and P. Zannetti (1987) Air Pollution Simulation Modeling and Measurement Strategies, AeroVironment, February 1987
- C.8 Zannetti, P. (1986) Air quality modeling and software, Computational Mechanics Institute, Ashurst, Southampton, UK, June 1986
- C.7 Zannetti, P., J.C.R. Hunt, and A.G. Robins (1985) Air Pollution Modeling Course, Computational Mechanics Centre, Ashurst, Southampton, UK, September 1985
- C.6 Gopalakrishnan, T.C. and P. Zannetti (1983) Numerical Modeling Course, Kuwait Institute for Scientific Research, Kuwait, December 1983
- C.5 Zannetti, P. and J.C.R. Hunt (1983) Air Pollution Modeling Course, Computational Mechanics Centre, Ashurst, Southampton, UK, May 1983
- C.4 Zannetti, P. and I. Tombach (1983) Air Pollution Course, Kuwait Institute for Scientific Research, Kuwait, January 1983; also Tombach, I. and P. Zannetti (1984) Air Pollution – Part 1: Introduction to Air Pollution and Dispersion Modeling, prepared for Kuwait Institute of Scientific Research, Kuwait, May 1984, AeroVironment Memorandum AV-M-84/533
- C.3 Zannetti, P., G.I. Jenkins, and D.J. Moore (1982) Air pollution modeling course, Computational Mechanics Centre, Southampton, UK, May 1982
- C.2 Zannetti, P. (1980) A short course on air pollution modeling, Computational Mechanics Centre, Southampton, UK, December 1980
- C.1 Zannetti, P. (1977) EURATOM CCM Courses, Modeling and Simulation of Ecological Processes: 1) Statistical models and their application to data collected in Venice, and 2) Statistical programs application to meteorological and air quality data (Computer practical exercise), Ispra, Italy, October 1977

Invited Lectures/Seminars

Dr. Zannetti has presented more than a hundred invited lectures and seminars throughout the world, including the most recent ones listed below:

- Meteorology and Air Pollution Science in Front of Judges and Juries. Presented at the University of Padova, Department ICEA, October 16, 2023 and the Universita' Politecnica delle Marche, Dipartimento di Ingegneria Industriale e Scienze Matematiche, Italy, 19 October 2023. <u>DL</u>
- Monte Carlo Techniques and Their Use to Simulate Atmospheric Diffusion. Presented at the University of Trento, Italy, 12 October 2023 and at the Universita' Politecnica delle Marche, Dipartimento di Ingegneria Industriale e Scienze Matematiche, Italy, 18 October 2023. <u>DL</u>

- A Global Modeling System (GMS) for High Resolution Meteorological and Air Pollution Forecasts - Framework and Prototype, by R. Bianconi, R. Bellasio, and P. Zannetti. 25th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling. November 2-4, 2021. <u>DL</u>. Also remotely presented at Special Colloquium on Computational Engineering Mathematics and Data Science, United States Military Academy, West Point, NY, October 21-22, 2021. <u>DL</u>
- Air Quality Models for Decision Support. Politecnico Milano, Dipartimento di Elettronica, Informazione e Bioingegneria, 21 September 2021, <u>DL</u>
- Air Pollution Modeling A Discussion from Different Angles. IDSIA, Lugano, Switzerland, 22 September 2021. <u>DL</u>
- Reducing Air Toxic Impact from Power Plants Startups through CFD-Assisted Design of Chimneys. Presented by P. Zannetti and G. Bucci. 94th Virtual CICIND Conference Rotterdam, 20th - 21th May 2021 <u>https://cicind.org/booking/downloads/TECH-PROG.pdf</u>
 Presentation slides: <u>DL</u>. Video presentation: <u>https://hadek.wistia.com/medias/uyp5v0t8ut</u>
- Simulation Modeling of COVID-19: Global Spread and Short-Range Contamination. SPECIAL COLLOQUIUM ON COMPUTATIONAL ENGINEERING MATHEMATICS (CEM) AND DATA SCIENCE, UNITED STATES MILITARY ACADEMY (USMA), WEST POINT, NY, NOVEMBER 18, 2020
 https://appscem.com/USMA_CEM_Colloquium_Flyer2020.pdf Presentation slides: https://www.apsi.tech/material/other/Zannetti_ColloquiumWestPoint20201118.pdf
- From A to B Simulation of Atmospheric Pathway. Keynote Speaker, Virtual Workshop on COVID-19: Challenges in Research and Education (https://www.astfe.org/courses/covid-19/). Organized by the American Society of Thermal and Fluids Engineers (ASTFE). August 31, 2020 <u>DL</u> Video presentation (start at 1:56:50): https://www.astfe.org/virtual workshop on covid19/?access key=ASTFE2020COVID-19
- Computational Mathematics in Environmental Sciences, Invited Lecture at the ARL/USMA Technical Symposium (AUTS), West Point, NY, 17 October 2019 <u>DL</u>
- Advances in Air Pollution Science: Meteorological Modeling, Cost Benefit Optimization, Litigation Support. Aarhus University, Denmark, June 24, 2019 <u>DL</u>
- Recent Air Quality Developments: Management, Assessment, and Modeling. Water and Environment Center (WEC) of the Royal Scientific Society (RSS) and UN ESCWA Technology Centre (ETC), Amman, Jordan, January 6, 2019 <u>DL</u>
- Air Pollution Litigation in the US and the Role of Computer Modeling, The Voeikov Main Geophysical Observatory, St. Petersburg, Russia, 22 June 2018 <u>DL</u>

- Dynamic Simulations Using Particle Models, 2nd Annual <u>Distinguished Symposium in</u> <u>Computational Engineering Mathematics</u>, United States Military Academy, West Point, April 3rd, 2018 <u>DL</u>
- Mathematical Methods in Air Pollution Studies, <u>Distinguished Colloquia in Computational</u> <u>Engineering Mathematics</u>, U.S. Army Department of Mathematical Sciences, West Point, NY, 4 October 2016 <u>DL</u>
- Air Pollution. Hazardous Materials Class, San Jose State University, California, 28 April 2015
- Cost-Benefit Optimization Approach to Air Pollution Management. Keynote Address, UPWIND-DOWNWIND CONFERENCE 2014: Built Environment – Foundation for Cleaner Air Sheraton Hotel, HAMILTON, Ontario, CANADA, 24 February 2014 <u>DL</u>
- Air Quality Modeling and Cost-Benefit Optimization Design of a Software Prototype for Managing Urban and Industrial Development, Keynote Address, AIR POLLUTION XXI, Siena, Italy, 4 June 2013 <u>DL</u>
- Computer Simulation of Air Pollution Methodologies and Case Studies, San Jose State University, California, 23 April 2013
- Environmental Crises: Accident Reconstruction and Plume Modeling, 2012 International Student Conference on Environment and Sustainability, Tongji University, Shanghai, China, 6 June 2012 <u>DL</u>
- Atmospheric Issues Chemical Releases, 2012 Asia-Pacific Leadership Programme on Environment for Sustainable Development, Tongji University, Shanghai, China, 5 June 2012
 DL
- Computer Modeling of Air Pollution Phenomena, San Jose State University, California, 22
 March 2011
- Applications of Dispersion Modeling in the Atmosphere, San Jose State University, California, Chemical Engineering Department, 27 April 2009
- Modellistica di Rilasci Accidentali di Inquinanti in Atmosfera. ARPA Puglia, Bari, Italy, 18 April 2009
- Guest Lecturer, 1) Introduction to Air Pollution; 2) Introduction to Air Pollution Modeling;
 3) Litigation case studies for accidental releases of chemicals in the atmosphere, 22
 October 2008, Environmental Science for Lawyers, Tulane Law School, Louisiana
- Business-Oriented Environmental Applications Case Studies and ICT Tools, April 20, 2008, University of Damascus, Syria; April 21, 2008, University of Homs, Syria; April 22, 2008, University of Lattakia, Syria; April 23, 2008, University of Aleppo, Syria <u>DL</u>

- Computer Modeling of Accidental Releases of Air Pollutants University of PADOVA, Department of Mathematical Methods and Models for Applied Sciences (DMMMSA), 26 March 2008; and University of VENEZIA, Italy, Faculty of Science, 27 March 2008
- 1) Introduction to Air Pollution Modeling; and 2) Accidental Releases in the Atmosphere. Presentations at Yunnan Environmental Science Society (YESS), Kunming Region, China. October, 2007. Member of the <u>A&WMA Delegation</u> to China under the banner of the Peopleto-People Citizen Ambassador programs. <u>Full report of the Mission</u>.
- Air Pollution Modeling of Accidental Releases Science and Litigation, Universidade Federal de Santa Maria, Brazil, 15 September 2005
- Workshop on Ambient Air Pollution, February 5 9, 2005, Kuwait Foundation for the Advancement of Sciences, Kuwait. Seminars: Introduction to Air Pollution, Introduction to Air Pollution Modeling, Air Pollution Case Studies