

Publications List – Nitsa Haikin

During the Current degree (from 4/2011)

Peer review journals

1. **N. Haikin, S. Trini-Castelli, 2022: On the effect of LLJ on atmospheric pollutants dispersion: A Case study over a coastal complex domain, employing high-resolution modeling.** *Boundary-layer meteorology* 182:471-495, first online 2021: DOI 10.1007/s10546-021-00661-x
2. **N. Haikin, P. Alpert, 2019: Near-Surface elevated pollution: What We Don't Know Doesn't Hurt? A Numerical Study Over Mt. Carmel.** *Environ. Res. Commun.* 1 (2019) 085003
3. **N. Haikin, R. Pielke Sr. 2018: Obituary: Yitzhak Mahrer.** July 2018, BAMS
4. **N. Haikin, E. Galanti, T. Reisin,, Y. Mahrer, P. Alpert, 2015: Inner Structure of Atmospheric Inversion Layers over Haifa Bay in the Eastern Mediterranean.** *Boundary-layer meteorol.* V.156 (3), 471-487. DOI 10.1007/s10546-015-0038-4
5. **J. Kutsher, N. Haikin, A. Sharon, E. Heifetz, 2012: On the formation of an elevated nocturnal inversion layer in the presence of low-level jet: A Case Study.** *Boundary-Layer Meteorol* 144: 441-449. DOI 10.1007/s10546-012-9720-y

Chapters in books/ Extended abstracts

1. **N. Haikin, S. Trini-Castelli 2021: Air pollution dynamics along a LLJ event in complex terrain: A high-resolution study employing RAMS,** 20th International Conference on Harmonization within Atmospheric Dispersion Modeling for Regulatory Purposes, Estonia. S9_H20-020
2. **Haikin N, Alpert P, 2020: An Extreme event of a Mesoscale Dust Front – A Case Study over the Eastern Mediterranean.** C. Mensik et al. (Editors), *Air Pollution Modeling and its Application XXVI, Springer Proceedings in Complexity*, DOI 10.1007/978-3-030-22055-6_68.
3. **N. Haikin, G. Kallos, P. Alpert, R. Avissar, B. Bornstein, R. Pielke Sr. 2019: An Atmospheric modeler – The Scientific Contribution of Yitzhak Mahrer.** C. Mensik et al. (Editors), *Air Pollution Modeling and its Application XXVI, Springer Proceedings in Complexity*, DOI 10.1007/978-3-030-22055-6_77.
4. **N. Haikin, P. Alpert, Y. Mahrer, 2016: A numerical study of air pollution and atmospheric fine-scale flow over the coastal complex terrain of Mt. Carmel.** 17th international Conference on Harmonization within Atmospheric Dispersion Modelling for Regulatory Purposes, Budapest, Hungary. Ch. H17-114.

Presentations

Oral presentations in Conferences and workshops

1. A. Bar-Or, **N. Haikin**, D. Katoshevski, **Identifying the conditions for Dioxines / Furanes formation in thermal oxidizer which treats waste-gases from process plants**, 2021, The Annual Symposium of the Israeli Section of the Combustion Institute, Tel-Aviv, Israel.
2. S. Trini-Castelli, **N. Haikin**. **The interaction between a low-level jet and the boundary-layer in complex topography**, Annual meeting of the European Meteorology Society (EMS) 2021
3. **N. Haikin**, S. Trini-Castelli, **Air pollution dynamics along a LLJ event in complex terrain: A high-resolution study employing RAMS**, 20th International Conference on Harmonization within Atmospheric Dispersion Modelling for Regulatory Purposes, Estonia, 2021
4. S. Trini-Castelli, **N. Haikin**, **Integrazione tra low-level jet e strato limite atmosferico in topografia assai complessa**, 2021. I limiti dello strato limite, e della turbolenza. e-workshop at ISAC-CNR Italia.
5. **N. Haikin**, **Atmospheric modeling over complex terrain – case of Haifa Bay**. 2018. Atmospheric conference for the memory of Prof. Ytzhak Mahrer, Hebrew University, Campus Rehovot, Israel.
6. **N. Haikin**, **Fine-scale study over Haifa Bay – where did the 3rd dimension go? The importance of spatial analysis of air-pollution in mountainous urbanized domain**, 2015, IMS workshop on urban meteorology: monitoring, modeling and environmental aspects, Beit Dagan, Israel.
7. **N. Haikin**, **Atmospheric flow patterns and air pollution over Haifa Bay – A case study**, 2015. 43rd annual meeting of the Israeli Society for Ecology and Environmental Sciences. Jerusalem, Israel.
8. **N. Haikin**, **Meteorology and air quality in Ramat Hovav region**, 2012. 53rd Annual Conference of the Israeli Geography Society. Beer Sheva, Israel.
9. **N. Haikin**, Y. Mahrer, P. Alpert, **Air-Pollution simulations for Haifa Bay employing high-resolution modeling**, 2012. 40th Annual conference of the Israeli Society of Ecology and Environmental Sciences. Tel-Aviv, Israel.
10. Steinberg D, **Haikin N**, Leonard G, 2012: **Models with Complex Uncertain Inputs**. Uncertain Quantification conference, USA.
11. **N. Haikin**, E. Galanti, T. G. Reisin, Y. Mahrer, P. Alpert, 2011: **Observations and Modeling of a Coastal Complex Terrain Boundary-Layer over a Meso-Gamma Domain**. Emerging Remote Sensing Techniques and Associated Modeling for Air Pollution Applications, 48th Oholo Conference, Eilat, Israel.

Posters

12. **N. Haikin, P. Alpert, 2018: An extreme event of dust – a case study over the eastern Mediterranean.** ITM 2018, Canada.
13. **N. Haikin et al, 2018: An atmospheric modeler – scientific contribution of Yitzhak Mahrer.** ITM 2018, Canada.
14. **N. Haikin, D. Michaeli, I. Israelashvili, 2018: Bubble dynamics within a bubble detector, when exposed to neutron dose.** Annual conference of the INS, Herzelia, Israel

Seminars and Invited Talks

15. **Modeling and upper air observations over a complex terrain in Israel,** 2019. ISAC-CNR, Torino, Italia.
16. **Atmospheric modeling over complex terrain,** 2019. Seminar at the Israel Meteorological Service (IMS).
17. **Air pollution over Haifa Bay,** 2016. Hadassah College, Jerusalem, Israel.
18. **Atmospheric risk assessment,** 2015. Safety Engineering dept., Ben-Gurion University of the Negev, Beer-Sheva, Israel.
19. **Meteorology in the service of the environment,** 2015. Caraso Scientific Park, Beer-Sheva, Israel. Via "Bashaar" academic organization.
20. **Air pollution modeling – the case of Haifa,** 2014. Geophysics and Planetary Sciences, Tel-Aviv University, Israel.
21. **The human being, the environment, and the interactions between them,** 2013. Caraso Scientific Park, Beer-Sheva, Israel. Via "Bashaar" academic organization.
22. **A model of industry and safe environment,** 2013. NRCN, Israel.
23. **Meteorology and air-quality in Ramat Hovav Industrial Municipality,** 2013. Environmental Engineering dept., Ben-Gurion University of the Negev, Beer-Sheva, Israel.

Others

Reports

About 25 internal scientific reports in NRCN of which third as the leading author, reviewer of internal reports, and the author of many professional opinion documents.

Various reports and numerous expert opinion documents within my service as the Head of the Environmental Unit of Neot Hovav Industrial Municipality (2012-2013).

Before the current degree (up to 4/2011)

Chapters in books

N. Haikin, Y. Mahrer, T. Reisin, E. Galanti, P. Alpert 2010: A High-Resolution Study of Atmospheric Dispersion Over a Coastal Complex Terrain. 1-13, NATO Science for Peace and Security Series-C:Environmental Security, Air-Pollution Modeling and It's Application XX, Editors: Douw G. Stein, S Trivikrama Rao. DOI 10.1007/978-978-90-481-3812-8, Springer Science.

Presentations

Oral presentations in Conferences and workshops

1. **N. Haikin, Y. Mahrer, T.G. Reisin, E. Galanti, P. Alpert, 2009: A High Resolution Study of Atmospheric Dispersion over a Coastal Complex Terrain.** 7th Conference on Active Research by Environmental Sciences Students (CARESS), Weizmann Institute of Science Rehovot.
2. **N. Haikin, Y. Mahrer, T.G. Reisin, E. Galanti, P. Alpert, 2009: A High Resolution Study of Atmospheric Dispersion over a Coastal Complex Terrain,** 30th NATO/CCMS International Meeting on Air Pollution and its Application, San Francisco USA.
3. **N. Haikin, Y. Mahrer, T.G. Reisin, E. Galanti, P. Alpert, 2009: A High Resolution Study of Meteorological Patterns and Air-Pollution Episodes in Haifa Bay, Using an Atmospheric Numerical Model.** 37th annual conference of the Israeli Society of Ecology and Environmental Sciences, Rehovot, Israel.
4. **N. Haikin, Y. Mahrer, T.G. Reisin, E. Galanti, P. Alpert, 2006: Air Pollution Prediction in Urban Scale.** 34th Annual conference of the Israeli Society of Ecology and Environmental Sciences, Haifa, Israel.
5. **N. Haikin, I. Mahrer, E. Weinroth, T. Reisin, P. Alpert, E. Galanti, 2006: Modeling System for Urban Air Pollution, Using RAMS.** 6th RAMS/BRAMS/OLAM international users workshop, Ubatuba, Brazil.
6. **D. Faiman, N. Haikin, 1998: UV Solar radiation differences between the lowest and the highest sites in Israel.** Annual meeting of the Israeli Meteorological Service, Jerusalem, Israel.
7. **N. Haikin, D. Faiman, A. Cohen, 1998: UVA and UVB Solar radiation measurements in Sde-Boqer, Ein-Bokek and My. Hermon.** The Annual meeting of the Israeli Society of Ecology and Environmental Sciences, Haifa, Israel.

Posters

8. **J. Kutsher, E. Heifetz, N. Haikin 2010: The formation of an elevated nocturnal inversion in an off-shore region due to low-level-jet mixing.** International Symposium for Advancements of Boundary Layer Remote Sensing, Paris, France.

Seminars and Invited Talks

9. **A high resolution study of atmospheric behavior over a coastal urban area with complex terrain: upper-air measurements and simulations,** 2010. IIBR, Israel.
10. **Air pollution from the industry,** 2009. Lecture within Air pollution course, Porter School of Environmental Sciences, Tel-Aviv University, Israel.

Others

Reports

More than 30 internal scientific reports in NRCN of which 70% as the leading author, a reviewer of internal scientific reports, the author of many professional-opinion documents.

T.G. Reisin, N. Haikin, 2006-2010: Prediction of air-pollution in an urban scale employing atmospheric models. Midterm and final project reports to the Pazi foundation.

Various reports and numerous expert opinion documents within my service as the Head of Air-Quality Branch in the southern district of the MOE (1998-2000) – including for enforcement and court.

D. Faiman, N. Haikin, 1997: Monitoring and study of the solar UVB in Israel. Report to the Ministry of Environment, Israel.

D. Berman, D. Faiman, N. Haikin: Calibration of Solar UVA and UVB broad band sensors, 1997: Yearly report of the National Solar Energy Center to the Ministry of Infrastructures.

D. Faiman, N. Haikin: Variations of Solar Ultra-Violet Radiation In Israel: Some Preliminary Results, 1997. Yearly report of the National Solar Energy Center to the Ministry of Infrastructures.

Expert opinion

Haikin N., P. Alpert, 2007: Damage to greenhouse crop from airborne disinfestation spray. Expert opinion report for lawsuit, and testimony in court.

N. Haikin, 2006: Expert opinion on environmental survey: A plan for dry-waste site, Kohav Michael. (Hebrew).

Membership in scientific cooperation groups

Italian-Israeli cooperation on Environmental Technologies, **Modeling System for Urban Air-Pollution**, Final report Dec. 2006. Research group members: Tel-Aviv University, Hebrew University, Soreq Nuclear Research Center, Technion, CNR Atmospheric Research Department, Rome.

The Israeli Ministry of the Environment, IUED, US-EPA, Ashdod-Hevel_Yavne Association for Environmental Protection, the Environmental department in Tel-Aviv municipality, 2003: **A Comparative Assessment of Public Health Risks from Air Pollution in Two Israeli Metropolitan Areas.**