

List of Publications

(January 2017)

100. Kushnir, Y., **Dayan, U.**, Ziv, B., Morin, E., and Enzel, Y.: Climate of the Levant: phenomena and mechanisms (In press - Geological Society of America)
99. Nirel, R., Adar, S.D., **Dayan, U.**, Vakulenko-Lagun, B., Golovner, M., Levy, I., Alon, Z., Roth, A., Peretz, A.: Leveraging Telemedicine Data to Assess Associations between Acute Cardiovascular Events and Ambient Particulate Air Pollution (In preparation).
98. Shalev, B., Nirel, R., Lensky, I., and **Dayan, U.**: Spatial variability of associations between AOD and synoptic classification over the East Mediterranean: Comparison between subjective and objective classifications (In preparation).
97. **Dayan, U.**, Ricaud, P., Zbinden, R., and Dulac, F.: Atmospheric Pollution Concentrations over the Eastern Mediterranean during Summer – A review, (Submitted to Atmos. Chem. Phys.).
96. Ricaud, P., Zbinden, R., Catoire, V., Brocchi, V., Dulac, F., Hamonou, E., Canonici, J.C., El Amraoui, L., Massart, S., Pigué, B., **Dayan, U.**, Nabat, P., Sciare, J., Ramonet, M., Delmotte, M., di Sarra, A., Sferlazzo, D., di Iorio, T., Piacentino, S., Cristofanelli, P., Mihalopoulos, N., Kouvarakis, G., Pikridas, M., Savvides, C., Mamouri, R., Nisantzi, A., Hadjimitsis, D., Attié, J.L., Ferré, H., Theron, P., Kangah, Y., Jaidan, N., Guth, J., Jacquet, P., Chevrier, S., Robert, C., Bourdon, A., Bourdinot, J.F., and Etienne, J.C.: The GLAM airborne campaign across the Mediterranean Basin, (Submitted to the Bulletin of the American Meteorological Society).
95. Crouvi, O., **Dayan, U.**, Amit, R., and Enzel, Y.: An Israeli Haboob: Sea breeze activating local anthropogenic dust sources in the Negev loess. (under review in Aeolian Research)
94. Tubi, A., **Dayan, U.**, and Lensky, I.: Moisture Transport by Tropical Plumes over the Middle East: A 30- year Climatology. (submitted to Quarterly Journal of the Royal Meteorological Society).
93. Nirel, R., Adar, S.D., **Dayan, U.**, Vakulenko-Lagun, B., Golovner, M., Levy, I., Alon, Z., Roth, A., and Peretz, A. (2016): Telemedicine Data Indicate Short-term Associations Between Clinical Cardiovascular Events and Ambient Particulate Air Pollution, *Circulation*, 133, Supl. 1, Meeting Abstract: P059.
92. Russo, A., C. Gouveia, I. Levy, **U. Dayan**, S. Jerez, M. Mendes, and R. Trigo, (2016): Coastal recirculation potential affecting air pollutants in Portugal: The role of circulation weather types, *Atmospheric Environment*, 135, p. 9-19. <http://dx.doi.org/10.1016/j.atmosenv.2016.03.039>.
91. Ziv, B., N. Harats, Y. Yair, and **U. Dayan** (2016): Can severe rain events over the Mediterranean Region be predicted through simple numerical indices? *Natural Hazards*, 83, 1197- 1212. doi:10.1007/s11069-016-2385-y
90. Becagli, S., L. Lazzara, C. Marchese, **U. Dayan**, T. di Iorio, A. di Sarra, F. Fani, D. Frosini, D. Meloni, G. Pace, M. Severi, R. Traversi, R. Udisti (2016): Relationships linking primary production, sea ice melting, and biogenic aerosol

- in the Arctic, *Atmospheric Environment* 136, 1-15, DOI: 10.1016/j.atmosenv.2016.04.002.
89. **Dayan, U.**, Nissen, K., and Ulbrich, U (2015): Review Article: Atmospheric conditions inducing extreme precipitation over the eastern and western Mediterranean, *Nat. Hazards Earth Syst. Sci.*, 15, 2525-2544, doi:10.5194/nhess-15-2525-2015, 2015.
 88. Lensky, I.M., and **U. Dayan** (2014): Satellite observations of land surface temperature patterns induced by synoptic circulations, *International Journal of Climatology*, DOI: 10. 1002/joc.3971.
 87. Tubi, A., and **U. Dayan** (2014): Tropical plumes over the Middle-East: Climatology and synoptic conditions, *Atmospheric Research*, 145-146, 168-181.
 86. Becagli, S., L. Lazzara, F. Fani, C. Marchese, R. Traversi, M. Sevir, A. di Sarra, D. Sferlazzo, S. Piacentino, C. Bommarito, **U. Dayan**, R. Udisti (2013): Relationship between Methanesulfonate (MS⁻) in atmospheric particulate and remotely sensed phytoplankton activity in oligomesotrophic central Mediterranean Sea, *Atmospheric Environment*, 79, 681-688.
 85. Tubi, A. and **U. Dayan** (2013): The Siberian High: Teleconnections, extremes and association with the Icelandic Low, *International Journal of Climatology*, 33(6), 1357-1366.
 84. Erel, Y., O. Tirosh, N. Kessler, **U. Dayan**, S. Belkin, M. Stein, A. Sandler, and J.J. Schauer (2013): Atmospheric particulate matter (PM) in the Middle East: Toxicity, transboundary transport, and influence of synoptic conditions, in P. Censi et al. (eds.), *Medical Geochemistry: Geological Materials and Health*, DOI 10.1007/978-94-007-4372-4__3, © Springer Science C Business Media Dordrecht 2013.
 83. Lensky, I., and **U. Dayan** (2013): Continuous detection and characterization of the Sea Breeze in clear sky conditions using Meteosat Second Generation, *Atmos. Chem. Phys.*, 12, 6505-6513.
 82. Calastrini, F., F. Guarnieri, S. Becagli, C. Busillo, M. Chiari, **U. Dayan**, F. Lucarelli, S. Nava, M. Pasqui, R. Traversi, R. Udisti, and G. Zipoli (2012): Desert dust outbreaks over Mediterranean Basin: A modeling, observational, and synoptic analysis approach, *Advances in Meteorology*, 12, doi:10.1155/2012/246874.
 81. Drori, R., **U. Dayan**, D. P. Edwards, L.K. Emmons, and C. Erlick (2012): Attributing and quantifying carbon monoxide sources affecting the Eastern Mediterranean: A combined satellite, modelling, and synoptic analysis study. *Atmos. Chem. Phys.* 12, 1067-1082.
 80. Becagli, S. C. Scarchilli, R. Traversi, **U. Dayan**, M. Sevir, D. Frosini, V. Vitale, M. Mazolla, A. Lupi, R. Udisti (2012): Study of present day sources and transport processes affecting oxidized sulphur compounds in atmospheric aerosols at Dome C (Antarctica) from all year round sampling campaigns. *Atmos. Environ.* 52, 98-108.
 79. Shohami, D., **U. Dayan** and E. Morin (2011): Warming and drying of the eastern Mediterranean: Additional evidence from trend analysis. *Journal of Geophysical Research*, 116, D22101, doi: 10.1029/2011JD016004.

78. **Dayan, U.**, Y. Erel, J. Shpund, L. Kordova, A. Wanger, J.J. Schauer (2011): The impact of local sources and meteorological factors on nitrogen oxide and particulate matter concentrations: A case study of the Day of Atonement in Israel. *Atmos. Environ.* 45, 3325-3332.
77. Lensky, I. and **U. Dayan** (2011): Detection of fine scale climatic features from satellites and implications to agricultural planning. *Bull. Ame. Met. Soc.* 92, 9, 1131-1136.
76. **Dayan, U.** A. Tubi, and I. Levy (2011): On the importance of synoptic classification methods with respect to environmental phenomena. *Int. J. Climat.* doi:10.1002/joc.2297.
75. Price, C., Y. Yair, A. Mugnai, K. Lagouvardos, M.S. Llassat, S. Michaelides, **U. Dayan**, S. Dietrich, F. Di Paola, E. Galanti, L. Garrote, N. Harats, D. Katsanos, M. Kohn, V. Kotroni, M. Llassat Botija, B. Lynn, L. Mediero, E. Morin, K. Nicolaides, S. Rozalis, K. Savvidou, B. Ziv (2011): The FLASH Project: Using lightning data to better understand and predict flash-floods. *Environ. Sc. Policy*, 14, 898-911.
74. Price, C., Y. Yair, A. Mugnai, K. Lagouvardos, M.S. Llassat, S. Michaelides, **U. Dayan**, S. Dietrich, F. Di Paola, E. Galanti, L. Garrote, N. Harats, D. Katsanos, M. Kohn, V. Kotroni, M. Llassat Botija, B. Lynn, L. Mediero, E. Morin, K. Nicolaides, S. Rozalis, K. Savvidou, B. Ziv (2011): Using lightning data to better understand and predict flash-floods in the Mediterranean. *Surv. Geophys.* 32, 733-751.
73. Becagli, S., C. Ghedini, S. Peeters, A. Rottiers, R. Traversi, R. Udisti, M. Chiari, A. Jalba, S. Despiou, **U. Dayan**, A. Temara (2011): MBAS (Methylene Blue Active Substances) and LAS (Linear Alkylbenzene Sulphonates) in Mediterranean coastal aerosols: Sources and transport processes. *Atmos. Environ.* 45, 6788-6801.
72. Lensky, I. M., and **Dayan, U.** : Continuous detection and characterization of the Sea Breeze in clear sky conditions using Meteosat Second Generation, *Atmos. Chem. Phys.*, 12, 6505-6513, doi :10.5194/acp-12-6505-2012, 2012.
71. Udisti, R., **U. Dayan**, S. Becagli, M. Busetto, D. Frosini, M. Legrand, F. Lucarelli, S. Preunkert, M. Seviri, R. Traversi, V. Vitale (2011): Sea spray aerosol in central Antarctica. Present atmospheric behavior and implications for paleoclimatic reconstructions. doi:10.1016/j.atmosenv.2011.10.018.
70. **Dayan, U.** (2011): Impacts of the NAO on atmospheric pollution in the Mediterranean Basin, In: *Hydrological, Socioeconomic and Ecological Impacts of the North Atlantic Oscillation in the Mediterranean region*, eds.: Sergio Vincente and Ricardo Trigo. Springer Series, *Advances in Global Change Research* 46, 171-181. doi: 10.1007/978-94-007-1372-7.
69. Harats, N., B. Ziv, Y. Yair, V. Kotroni, **U. Dayan** (2010): Lightning and rain dynamic indices as predictors for flash flood events in the Mediterranean. *Adv. Geosc.* 23, 57-64.
68. Kalderon-Asael, B., Y.Erel, A. Sandler and **U. Dayan** (2009): Mineralogical and chemical characterization of suspended atmospheric particles over the East Mediterranean based on synoptic-scale circulation patterns. *Atmospheric Environment*, doi: 10.1016/j. atmosenv. 2009.03.057.

67. Yanai, M., J. Koch and **U. Dayan** (2009): Trends in CO₂ emissions in Israel - An international perspective. *Climatic Change*, doi: 10.1007/s10584-009-9706-z
66. Levy, I., **U. Dayan** and I. Mahrer, (2009): Differing atmospheric scales of motion and their impact on air pollutants. *Int. J. Climat.* doi: 10.1002/joc.1905.
65. Levy, I., Y. Mahrer and **U. Dayan**, (2009): Coastal and synoptic recirculation affecting air pollutants dispersion: A numerical study. *Atmos. Env.* 43(12): 1991-1999.
64. Levy, I., U. Dayan, and I. Mahrer (2008): A 5-yr Study of the coastal Recirculation and its Effect on Air Pollutants over the East Mediterranean Region. *Journal of Geophysical Research*, 113, doi:10.1029/07JD009529.
63. Teutsch, N; Y. Shaked, **U. Dayan**, B. Lazar, M. Stein, and Y. Erel (2008): Characterization of atmospheric dust in the Gulf of Akaba, *Geochimica et Cosmochimica Acta*,72(12), A943-A943.
62. Rudich, Y.J. Kaufman, **U. Dayan**, Hongbin Y. and R.G. Kleidman (2008): Estimation of Transboundary Transport of Pollution Aerosols by Remote Sensing in the Eastern Mediterranean, *J. Geophys. Res – Atmospheres*, 113 (D14), D14S13.
61. Feldstein, S., and **U. Dayan** (2008): Circumglobal Teleconnections and Wave Packets Associated with Eastern Mediterranean Precipitation. *Quarterly Journal of the Royal Meteorological Society*, 134(631), 455-467
60. Enzel, Y., R. Amit, **U. Dayan**, O. Crouvi, R. Kahana, B. Ziv, D. Sharon (2008): The climatic and physiographic controls of the eastern Mediterranean over the late Pleistocene climates in the southern Levant and its neighboring deserts, *Global and Planetary Change*, 60, 165-192.
59. Levy, I., **U. Dayan**, and Y. Mahrer (2008), Studying coastal recirculation with a simplified analytical land-sea breeze model, *J. Geophys. Res.*, 113, D03104, doi:10.1029/2007JD008628.
58. **Dayan, U.** and Dennis Lamb (2007): Influences of atmospheric circulation on the variability of wet sulfate deposition (p n/a) Published Online: Nov 6 2007, *International Journal of Climatology* DOI: 10.1002/joc.
57. **Dayan, U.**, B. Ziv, T. Shoop, and Y. Enzel (2007): Suspended Dust over South-Eastern Mediterranean and its Relation to Atmospheric Circulations, *International Journal of Climatology* DOI: 10.1002/joc.1587. Published Online: Aug 1 2007
56. Morin, E., N. Harats, Y. Yacoby, S. Arbel, M. Getkar, A. Arazi, T. Grodek, B. Ziv, and **U. Dayan** (2007): Studying the Extremes: Hydrometeorological Investigation of a Flood- Causing Rainstorm over Israel. *Advances in Geosciences*, 12, 1-8.
55. Erel, Y., B. Kalderon-Asael, **U. Dayan**, and A. Sandler (2007): European Pollution Imported by Cooler Air Masses to the Eastern Mediterranean during the Summer *Environ.Sci.Technol* 41, 5198-5203.

54. Vaks, A., M. Bar-Matthews, A. Ayalon, A. Matthews, A. Frumkin, **U. Dayan**, L.Halicz, A. Almogi-Labin, and B. Schilman (2006): Paleoclimate and location of the border between Mediterranean climate region and the Saharo-Arabian Desert as revealed by speleothems from the northern Negev Desert, Israel. *Earth and Planetary Science Letters*, 249, 384-399.
53. Erel, Y., **U. Dayan**, R. Rabi, Y. Rudich, and M. Stein (2006): Tracing Trans-Boundary Transport of Pollutants by Mineral Dust. *Environ.Sci.Technol* 40 (9), 2996-3005.
52. Ziv B. **U Dayan**,, Y. Kushnir ,C. Roth, and Y. Enzel (2006): Regional and Global Atmospheric Patterns Governing Rainfall in the Southern Levant. *International Journal of Climatology* .26, 55-73.
51. **Dayan, U.** and E. Morin (2006): Flash Flood-Producing rainstorms over the Dead Sea, Israel: A Review, in Enzel, Y., Agnon, A., and Stein, M., eds., *New Frontiers in Dead Sea paleoenvironmental research: Geological Society of America Special Paper* 401, doi: 10.1130/2006/2401(04).
50. **Dayan, U.**, and I. Levy (2005): The influence of seasonal meteorological conditions and atmospheric circulation types on PM10 and visibility in Tel-Aviv, Israel. *Journal of Applied Meteorology*, 44, 606-619
49. **Dayan, U.**, and D. Lamb (2005): Global and synoptic scale weather patterns controlling wet atmospheric deposition over Central Europe. *Atmospheric Environment*. 39, 521-533.
48. Rabi R, Erel Y, **Dayan U**, Stein M. (2004): Tracing natural and anthropogenic contributions to modern dust storms: Sr, Pb isotopes and trace elements in Jerusalem suspended dust. *Geochimica et Cosmochimica Acta* 68 (11): A464-A464 Suppl. S, JUN 2004
47. Kahana, R., B. Ziv, **U. Dayan**, and Y. Enzel (2004): Atmospheric Predictors for Major Floods in the Negev Desert, Israel. *International Journal of Climatology* 24, 1137-1147
46. Ziv, B., **U. Dayan**, and D. Sharon (2004): A Mid-Winter, Tropical Extreme Flood-Producing Storm in Southern-Israel: Synoptic Scale Analysis. *Meteorology and Atmospheric Physics* DOI, 10.1007/s00703-003-0054-7.
45. Margalit, A., D. Sharon, B. Ziv, and **U. Dayan** (2003): A Mid-Winter, Tropical Extreme Flood-Producing Storm in the Negev, 20-23 December 1993: A Meso-Scale Analysis *Horizons in Geography* 57-58, 134-145.(in Hebrew).
44. **Dayan, U.**, and D. Lamb (2003): Network Comparability and the Reconstruction of a Precipitation Chemistry Record at a Monitoring Site in the Eastern United States. *Atmospheric Environment*, 37, 4371-4379
43. Enzel, Y., R. Ken-Tor, D. Sharon, H. Gvirtzman, **U. Dayan**, and M. Stein (2003): Late Holocene Climates of the Near East Deduced from Dead Sea Level Variations and Regional Winter Rainfall. *Quaternary Research*, 60, 263-273
42. **Dayan, U.**, and D. Lamb (2003): Meteorological Indicators of Summer Precipitation Chemistry in Central Pennsylvania. *Atmospheric Environment*, 37, 1045-1055 .

41. Koch, J., **U. Dayan** and S. Amir (2003): Stabilization of Atmospheric Concentrations of Greenhouse Gases – A proposal for “recently –developed” countries to participate in the global effort. *Climatic Change* 57, 227-241
40. **Dayan, U.**, and I. Levy (2002): Relationship between Synoptic-scale Atmospheric Circulation and Ozone Concentrations over Israel. *Journal of Geophysical Research*, 107, D24, 4813, doi:2002JD002147
39. Erel, Y., T. Axelrod, A. Veron, Y. Mahrer and **U. Dayan** (2002) : Trans-boundary Atmospheric Lead Pollution. *Environ.Sci.Technol.*36, 3230-3233.
38. Matveev, V., **U. Dayan**, I. Tass and M. Peleg (2002): Atmospheric Sulfur Flux Rates to and from Israel. *Science of the Total Environment* 291, 143-154
37. Kahana, R., B. Ziv, Y. Enzel and **U. Dayan** (2002): Synoptic Climatology of Major Floods in the Negev Desert, Israel. *International Journal of Climatology* 22, 867-882
36. Ranmar, D.O., V. Matveev, **U. Dayan**, M. Peleg, J. Kaplan, A. W. Gertler, M. Luria, G. Kallos, P. Katsafados and Y. Mahrer (2002): The Impact of Coastal Transportation Emission of NO_x and VOC on Inland Air Pollution over Israel- Utilizing Numerical Simulations, Airborne Measurements and Synoptic Analysis. *Journal of Geophysical Research*, 107. D17, 4331, doi:2001JD000808,
35. **Dayan, U.** and B. Lifshitz-Goldreich and K. Pick (2002): Spatial and Structural Variation of the Atmospheric Boundary Layer during summer in Israel- Profiler and Rawinsonde Measurements. *Journal of Applied Meteorology*, 41, 447-457
34. **Dayan, U.** and J. Koch (2002): Dispersion of PCB in the Environment Following an Atmospheric Release Caused by a Fire. *Science of the Total Environment* 285, 147-153.
33. **Dayan, U.**, B. Ziv, A. Margalit, E. Morin and D. Sharon (2001): A Severe Autumn Storm Over the Middle-East: Synoptic and Mesoscale Convection. *Theoretical and Applied Climatology*, 69, 103-122
32. Nirel, R., and **U. Dayan**. (2001): On the Ratio of Sulfur Dioxide to Nitrogen Oxides as an Indicator of Air Pollution Sources. *Journal of Applied Meteorology*, 40, pp. 1209-1222
31. Koch, J., **U. Dayan** and A. Mey-Marom. (2000) Inventory of Emissions and Removals of Greenhouse Gases in Israel. *Water, Air and Soil Pollution*, 123, 259-271
30. Wanger, A., M. Peleg, G. Sharf, Y. Mahrer, **U. Dayan**, G. Kallos, V. Kotroni, K. Lagouvardos, M. Varinou, A. Papadopoulos and M. Luria. (2000) Some Observational and Modelling Evidence of Long Range Transport of Air Pollutants from Europe Towards the Israeli Coast. *Journal of Geophysical Research*, 105, D6, 7177-7186
29. **Dayan, U.** and J. Koch (2000) Implications of Climate Change on the Coastal Region of Israel. In: *Coastal Area Management – Mediterranean Action Plan*, pp. 2-73.
28. Koch J., and **U. Dayan** (2000) National Greenhouse Inventory. In: S. Gabbay (ed.), *Israel National Report on Climate Change*, pp. 39-50.
27. Koch J., **U. Dayan** and A. Mey-Marom (2000) Inventory of Emissions of Greenhouse Gases in Israel. In: S. Belkin and S. Gabbay (eds.), *Environmental*

- Challenges, Kluwer Academic Publishers, Dordrecht, The Netherlands, pp. 259-271.
26. **Dayan U.** and J. Rodnizki. (1999) The Temporal Behavior of the Atmospheric Boundary Layer in Israel. *Journal of Applied Meteorology*, 38, pp. 830-836
 25. Moulin C., C.E. Lamber, **U. Dayan** V. Masson, M. Ramonet, P. Bousquet, M. Legrand, Y. J. Balkanski, W. Guelle, B. Marticorena, G. Bergametti, and F. Dulac. (1998) Satellite Climatology of African Dust Transport in the Mediterranean Atmosphere. *Journal of Geophysical Research*, 103, D11, pp. 13137-13144
 24. Moulin C., C.E. Lambert, F. Dulac and **U. Dayan**. (1997) Control of Atmospheric Export of Dust from North Africa by the North Atlantic Oscillation. *Nature*, 387, 12 June 1997, pp. 691-694
 23. **Dayan U.**, J.L. Heffter and J.M. Miller (1997) Seasonal Distribution of the Boundary Layer Depths over the Mediterranean Basin. In: S. Guerzoni and R. Chester (eds.), *The Impact of Desert Dust from Northern Africa Across the Mediterranean*, Kluwer Academic Publishers, Dordrecht, The Netherlands, pp. 103-112.
 22. **Dayan U.** and J. Koch. (1996) Ozone Concentration Profiles in the Los Angeles Basin - A Possible Similarity in the Build-up Mechanism of Inland Surface Ozone in Israel. *Journal of Applied Meteorology*, 35, July 1996, pp. 1085-1090 .
 21. Glaser, E., N. Dagan, O. Furer, M. Gamliel, A. Yogev, S. Fastig, **U. Dayan** and Y. Benayahu. (1993) A Comparison of Balloon Soundings and Lidar Scans for Measuring the Height of the Turbulent Mixed-Layer at a Coastal Site in Israel. *Water Science and Technology*, 27, July 1993, pp. 271-278 .
 20. Koch, J. and **U. Dayan**. (1992) A Synoptic Analysis of the Meteorological Conditions Affecting Dispersion of Pollutants Emitted from Tall Stacks in the Coastal Plain of Israel. *Atmospheric Environment*, 26A (14), pp. 2537-2543
 19. Hashmonay, R., **U. Dayan** and A. Cohen. (1991) Lidar Observation of the Atmospheric Boundary Layer in Jerusalem. *Journal of Applied Meteorology*, 30, August 1991, pp. 1228- 1236
 18. **Dayan, U.**, J. Heffter, J. Miller and G. Gutman. (1991) Dust Intrusion Events into the Mediterranean Basin. *Journal of Applied Meteorology*, 30, August 1991, pp. 1185-1199.
 17. **Dayan, U.**, R. Shenhav and M. Graber. (1988) The Spatial and Temporal Behavior of the Mixed Layer in Israel. *Journal of Applied Meteorology*, 27, December 1988, pp. 1382-1394.
 - 16 **Dayan, U.** and D. Nelson. (1988) Origin and Composition of Samoan Acid Precipitation. *Tellus*, 40B, 1988, pp. 148-153
 15. Galloway, J.N., R.S. Artz, **U. Dayan**, R.F. Pueschel and J.F. Boatman. (1988) WATOX 85: An Aircraft and Ground Sampling Program to Determine the Transport of Trace Gases and Aerosols Across the Western Atlantic Ocean. *Atmospheric Environment*, 22 (11), pp. 2345-2360.
 14. **Dayan, U.** (1988) Environmental Impact Statement of IBS Relay Station, Israel (Author of the Air Pollution Section) (in English and Hebrew), pp. 21-84.

13. Mamane, Y., **U. Dayan** and J.M. Miller. (1987) Contribution of Alkaline and Acidic Sources to Precipitation in Israel. *The Science of the Total Environment*, 61 (1987), pp. 15-22
12. Billman Stunder, B.J., J.L. Heffter and **U. Dayan**. (1986) Trajectory Analysis of Wet Deposition at Whiteface Mountain: A Sensitivity Study. *Atmospheric Environment*, 20, September 1986, pp. 1691-1695
11. **Dayan, U.** (1986) Climatology of Back Trajectories from Israel Based on Synoptic Analysis. *Journal of Climatology and Applied Meteorology*, 25, May 1986, pp. 591-595
10. Artz, R.S. and **U. Dayan**. (1986) Chemistry of Precipitation at Caribou, Maine- Analysis of the Longest Precipitation Chemistry Data Network in the U.S. *Water, Air and Soil Pollution*, 30, pp. 845-855
9. Graber, M. and **U. Dayan**. (1985) The Existing and Necessary Information in Israel for the Study of the Influence of an Industrial Zone on Air Pollution. *City and Region*, 4, December 1985, pp. 59-75.
8. **Dayan, U.**, J.M. Miller, W.C. Keene and J.N. Galloway. (1984) An Analysis of Precipitation Chemistry Data from Alaska. *Atmospheric Environment*, 19 (6) April 1985, pp. 651-657
7. **Dayan, U.** and R. Abramski. (1983) Heavy Rain in the Middle East Related to Unusual Jet Stream Properties. *Bulletin of the American Meteorological Society*, 64(10), October 1983, pp. 1138-1140
6. **Dayan, U.** (1983): "Dispersion of Air Pollutants in an Urban Area with Complex Terrain" PhD Dissertation, Supervisors: Dr. E.H. Steinberger and Prof. Y. Neuman, The Department of Atmospheric Sciences, Institute of Earth Sciences, The Hebrew University of Jerusalem.
5. Steinberger, E.H. and **U. Dayan**. (1983) Modeling Dispersion of Pollutants in the Complex Terrain of Jerusalem. Sixth Symposium on Turbulence and Diffusion, 22-25 March, 1983. Boston, Massachusetts (American Meteorol. Soc., Boston, MA), pp. 113-117.
4. **Dayan, U.** and M. Graber (1981) Analysis of Synoptic Conditions in the Eastern Mediterranean that Led to Elevated Air Pollution Concentration in Israel. In "Developments in Arid Zone Ecology and Environmental Quality" Balaban International Science Service, Philadelphia, PA, U.S.A., pp. 383-391.
3. **Dayan, U.** and D. Sharon. (1980) Meteorological Parameters for Discriminating Between Widespread and Spotty Storms in the Negev. *Israel Journal of Earth Sciences*, 29 (4), 1980, pp. 253-256
2. **Dayan, U.** (1979) Resources, Pollutants and Impacts: Air. In: *The Environment in Israel*, Jerusalem. Environmental Protection Service (Publication 79-01), pp. 65-73.
1. **Dayan, U.** (1979) *Synoptic Meteorology*. The Hebrew University Press, 120 pp.