LIST OF PUBLICATIONS Dan G. Blumberg, Prof.

(c) Chapters in collective volumes - Conference proceedings, etc.

1. Maman, S, Shenfeld, A, Isaacson, S, Blumberg, DG. (2016)  *Spec Tool; an online education and research resource.* **International Archives of the Photogrammetry, Remote Sensing & Spatial Information Sciences**. 2016, Vol. 41 Issue B6, p9-11. 3p
2. Schvartzman, I .Havivi ,S., Maman S. Rotman S.R Blumberg, D. G. (2016, Jul) *Large oil spill classification using SAR images based on spatial histogram***.** In: **The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XLI-B8, 2016XXIII ISPRS Congress,** 12–19, Prague, Czech Republic
3. Havivi ,S.,Schvartzman I. Maman S.. Marinoni A. Gamba Pc. Rotman, S.R Blumberg, D. G. (2016, Jul)*. Utilizing SAR and Multispectral Integrated Data for Emergency Response.* In: **The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences**, Volume XLI-B7,*XXIII ISPRS Congress, 12–19 July 2016, Prague, Czech Republic*
4. Isaacson, S., Rachmilevitchb, S., Ephrath, J.E., Maman, S., Blumberg, D.G.
 (2016, Jul) *Monitoring tree population dynamics in arid zone through multiple temporal scales: integration of spatial analysis, change detection and field long term monitoring.* In**: The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences,** Volume XLI-B7, XXIII ISPRS Congress, July 2016, Prague, Czech Republic
5. Schvartzman,I , Maman, S, Blumberg, DG, Rotman, SR. (2016, Nov). *‏Improved covariance matrix for target detection in hyperspectral imaging.* In: **Science of Electrical Engineering (ICSEE), IEEE International Conference on the** 16-18 Nov. 2016.
6. Dayan .I , . Maman, S. ,Blumberg, D. G., Rotman, S.(2016, Oct).
*Multi-temporal anomaly detection technique*. In**: Electro-Optical and Infrared Systems: Technology and Applications** XIII David A. Huckridge; Reinhard Ebert; Stephen T. Lee Edinburgh, United Kingdom |September 26, 2016
7. Hetz ,G., , Beyth ,M., , Baer, G., , Sagy, A., Blumberg, D. G., Ginat, H.(2016)*. Calibrated surface ages for desert pavements from spaceborne radar measurements of surface roughness and application of this new dating method for quantifying tectonic slip rates across the Dead Sea transform since ~1 MA.* In **GSA Annual Meeting in Denver**, Colorado, USA – 2016 Paper No. 281-3.
8. Isaacson,S, Winters, G, Blumberg ,DG, Ephrath ,J.E. (2016, Apr) ‏ *Monitoring Acacia seedlings establishment and survival for a geo-spatial analysis model* ***EGU General Assembly Conference Abstracts 18, 13523‏***
9. Sadeh, Y, Blumberg , DG, Cohen ,H, Morin, E, Maman ,S. ***‏***(2016, Apr) *Extraction Of Hydrological Parameters Using High Spatial Resolution Remote Sensing For KINEROS2 Model*. **EGU General Assembly Conference Abstracts 18, 9534‏**
10. Sadeh, Y, Blumberg , DG, Cohen ,H, Morin, E, Maman ,S. ***‏***(2016, Apr) *Use of High Spatial Resolution Remote Sensing for Hydro-Geomorphologic Analysis of Medium-sized Arid Basins.* **EGU General Assembly Conference Abstracts 18, 9456**
11. Isaacson, S, Blumberg, DG, Rachmilevitch, S, Ephrath, JE, Maman, S. ***‏***(2016, Apr)  **‏***Using remote sensing and spatial analysis of trees characteristics for long-term monitoring in arid environments* **EGU General Assembly Conference Abstracts 18, 6076.**
12. **‏** Havivi, S , Amir, D ,Schvartzman, I, August, Y ,Mamman, S, Rotman, SR, **‏*‏***(2016,Apr) *Advanced Interferometric Synthetic Aperture Imaging Radar (InSAR) for Dune Mapping* **EGU General Assembly Conference Abstracts 18, 14140‏.**
13. Maman, S, Isaacson, S, Blumberg, DG**‏*‏***(2016,Apr) *Geographic Information Technologies as an outreach activity in geo-scientific education* **EGU General Assembly Conference Abstracts 18, 14801‏.**
14. Hasson, N., Asulin, S., Blumberg, D., & Rotman, S. R. (2015, May). *Evaluating backgrounds for subpixel target detection: when closer isn't better*. In **SPIE Defense+ Security** (pp. 94720R-94720R). International Society for Optics and Photonics.‏
15. Roskin, J., Katra, I., & Blumberg, D. G. (2015, April). *Particle-size fractionation of aeolian sand along a climatic and geomorphic gradient of the Sinai-Negev erg*. In **EGU General Assembly Conference Abstracts** (Vol. 17, p. 357).‏
16. Cohen-Zada, A. L., Blumberg, D. G., & Maman, S. (2015, April). *Wind Streaks on Earth; Exploration and Interpretation*. In **EGU General Assembly Conference Abstracts** (Vol. 17, p. 214).‏
17. Havivi, S., August, Y., Blumberg, D. G., & Rotman, S. R. (2015, April). *Advanced InSAR imaging for dune mapping*. In **EGU General Assembly Conference Abstracts** (Vol. 17, p. 416).
18. Maman, S., Blumberg, D. G., Tsoar, H., & Porat, N. (2015, April). *The Karakum and Kyzylkum sand seas dynamics; mapping and palaeoclimatic interpretations*. In **EGU General Assembly Conference Abstracts** (Vol. 17, p. 136).‏
19. Benou, A., Rotman, S. R., & Blumberg, D. G. (2014, December). *Classification of synthetic aperture radar images using Markov Random Field and textural features*. In **Electrical & Electronics Engineers** in Israel (IEEEI), 2014 IEEE 28th Convention of (pp. 1-5). IEEE.‏
20. Schvartzman, I., Rotman, S. R., & Blumberg, D. G. (2014, December). *Multi-pixel anomaly detection in multi-temporal thermography*. In **Electrical & Electronics Engineers** in Israel (IEEEI), 2014 IEEE 28th Convention of (pp. 1-4). IEEE.
21. ‏August, Y., Oiknine, Y., Stern, A., & Blumberg, D. G. (2014, October). *Hyperspectral compressive imaging based on spectral modulation in the spectral domain*. In **Frontiers in Optics** (pp. FM3E-4). Optical Society of America.‏
22. Kozhoridze, G., Orlovsky, N., Orlovsky, L., Blumberg, D. G., & Golan-Goldhirsh, A. (2014, July). *Global distribution of Pistacia with focus on the Mediterranean species–remote sensing and GIS analyses*. In **ForestSAT2014 Open Conference System**.‏
23. August, Y., Stern, A., & Blumberg, D. G. (2014, June). *Single-pixel spectroscopy via compressive sampling*. In **Computational Optical Sensing and Imaging** (pp. CTu2C-2). Optical Society of America.‏
24. Roskin, J., Muhs, D. R., Tsoar, H., Skipp, G., Budahn, J., Sneh, A., ... & Blumberg, D. G. (2014, May). *Origin of the Sinai-Negev erg, Egypt and Israel: Mineralogical and geochemical evidence for the importance of the Nile and sea level history*. In **EGU General Assembly Conference Abstracts** (Vol. 16, p. 496).
25. Isaacson, S., Blumberg, D. G., Rachmilevitch, S., & Ephrath, J. E. (2014, May). *Long and short-term spatial processes analysis of an acacia tree population using a single aerial photograph with near infra-red band*. In **EGU General Assembly Conference Abstracts** (Vol. 16, p. 13312).‏
26. Isaacson, S., Blumberg, D. G., Rachmilevitch, S., & Ephrath, J. E. (2014, May). *Spatial analysis of a long-lived tree population in a hyper-arid zone as an indicator of past and present eco-hydrology*. In **EGU General Assembly Conference Abstracts** (Vol. 16, p. 13980).‏
27. Maman, S., Tsoar, H., Blumberg, D., & Porat, N. (2014, May). *Central Asian sand seas climate change as inferred from OSL dating*. In **EGU General Assembly Conference Abstracts** (Vol. 16, p. 2804).
28. Shalev, A., Yagev, A., August, Y., Blumberg, D. G., & Rotman, S. R. (2013). *Persistent scatterers detection in open area in high resolution SAR imagery—Case study: Sendai, Japan*. In **Microwaves, Communications, Antennas and Electronics Systems (COMCAS), 2013 IEEE International Conference on** (pp. 1-5). IEEE.‏
29. Kozhoridze ,G., Orlovsky,N., Orlovsky,L., Golan (Goldhirsh),A.,
30. Hetz, G., Mushkin, A., Blumberg, D.G., & Baer, G. (2013). "*Estimating the surface age of arid-zone alluvial fans using spaceborne radar data*". In, **Conference on SAR Image Analysis, Modeling, and Techniques XIII**. Dresden, GERMANY
31. Hetz, M., Blumberg, D.G., Rotman, S.R., Enbar, R., & Benou, A. (2013). "*Radar clutter as an indicator for vegetation classification using a single dual polarimetric TSX-1 image*". In C. Notarnicola, S. Paloscia, & N. Pierdicca (Eds.), **SAR Image Analysis, Modeling, and Techniques Xiii**
32. Orfaig, A., Rotman, S. R., & Blumberg, D. G. (2012). *Anomaly detection using an adaptive algorithm for estimating mixtures of backgrounds in hyperspectral images*. In **Electrical & Electronics Engineers in Israel (IEEEI), 2012 IEEE 27th Convention of (pp. 1-5).** IEEE.‏
33. Sharon, G., Enbar, R., Rotman, S.R., Blumberg, D.G., Schlamm, A., & Messinger, D. (2012). *Detection of Anomalous Activity in Hyperspectral Imagery: Metrics for Evaluating Algorithms*. In S.S. Shen, & P.E. Lewis (Eds.), **Algorithms and Technologies for Multispectral, Hyperspectral, and Ultraspectral Imagery Xviii**
34. Cohen, Y., Blumberg, D.G., & Rotman, S.R. (2011a). *Sub-pixel target detection using local spatial information in hyperspectral images*. In G.W.S.O.L.K.L.B.G.J.G.J.D. Kamerman (Ed.), **Electro-Optical Remote Sensing***, Photonic Technologies, and Applications V*
35. Cohen, Y., Blumberg, D.G., Rotman, S.R., Kamerman, G., Steinvall, O., Lewis, K., Bishop, G., & Gonglewski, J. (2011b). *Sub-pixel target detection using local spatial information in hyperspectral images.* **Electro-Optical Remote Sensing, Photonic Technologies, and Applications V***, 8186*
36. Rotman, D.N., Rotman, S.R., Blumberg, D.G., Ontiveros, E., & Messinger, D. (2011a). *Gas detection from smoke stacks: finding multiple constituent gases in a plume using infrared hyperspectral data*. In G.W.S.O.L.K.L.B.G.J.G.J.D. Kamerman (Ed.), **Electro-Optical Remote Sensing, Photonic Technologies, and Applications V**
37. Rotman, D.N., Rotman, S.R., Blumberg, D.G., Ontiveros, E., Messinger, D., Kamerman, G., Steinvall, O., Lewis, K., Bishop, G., & Gonglewski, J. (2011b). *Gas detection from smoke stacks: finding multiple constituent gases in a plume using infrared hyperspectral data*. **Electro-Optical Remote Sensing,****Photonic Technologies, and Applications V***, 8186*
38. August, Y., Blumberg, D. G., & Rotman, S. R. (2011). *Identifying low reflection amplitude and low level phase noise points for permanent scatterer (PS) interferometry*. In **Microwaves, Communications, Antennas and Electronics Systems (COMCAS), 2011 IEEE International Conference On (pp. 1-4).** IEEE.‏
39. Roskin, J., Tsoar, H., Blumberg, D.G, and N. Porat, 2010, *Have the northwest Negev dunefield sands reddened since their deposition?* **Geophysical Research Abstracts**, 12, EGU2010-6094.
40. Porat, N., Tsoar, H. and D.G, Blumberg, 2010, *An OSL chronology for the development of the northwest Negev dunefield, Israel*, **Geophysical Research Abstracts,** 12, EGU2010-4327.
41. Hetz, G., Blumberg, D.G, and D. Avraham, 2010, *Monitoring morphological changes in an arid zone by spaceborne images and aerial photography between 1945–2009; the Yamin Plateau, Israel*, **Geophysical Research Abstracts**, 12, EGU2010-8124-1.
42. Hetz, M. and D.G Blumberg, 2010, *Estimation of vegetation parameters such as Leaf Area Index from polarimetric SAR data*, **Geophysical Research Abstracts,** 12, EGU2010-8638.
43. Roskin, J., Tsoar, H., Porat, N., Blumberg, D.G., Zilberman, Z.,2012. *The late Quaternary dune encroachments into the northwestern Negev Desert, Israel*. In Levi, E. and Sagi, Y. (eds.), **Israel Geological Society Meeting**, Field Trips, Ashqelon.pp. 3E-30E.
44. Blumberg, D.G., Balk, D., Gurokovich, Y., Small, C., Balk, D., 2008. *Rapid assessment of exposed populations in the aftermath of natural hazard events: Lessons from the Sumatra 2004 Tsunami regarding the use of SAR data*, **EUSAR 2008 -7th European Conference on Synthetic Aperture Radar**, Friedrichshafen, Germany.
45. Sagiv, L., Blumberg, D.G., and Rotman, S.R., 2008. *Detection and Identification of Effluent Gases by Long Wave Infrared (LWIR) Hyperspectral Images,* **IEEE Convention of Electrical and Electronics Engineers in Isreal,** Vol. 1&2: 413-417.
46. Melamed, G., Rotman, S.R., Blumberg, D.G. and Weiss, A.J., 2008. *Anomaly Detection in Multi-Polarimetric Radar Images,* **IEEE Convention of Electrical and Electronics Engineers in Isreal,** Vol. 1&2: 548-552.
47. Tsoar, H., Blumberg, D.G. and Wenkart, R., 2008. *Formation and Geomorphology of the NW Negev Sand Dunes*. In: S.W. Breckle, A. Yair and M. Veste (Editors), **Arid Dune Ecosystems**. Springer, Berlin, pp. 25-48.
48. Blecher, H., Rotman, S.R. and D.G Blumberg, 2008, *Detecting anomalous objects in hyperspectral data using segmentation*, **Proc. SPIE** 7113, 711314, doi:10.1117/12.797161.
49. Boker. L., Rotman, S.R, and D.G, Blumberg, 2008, *Coping with mixtures of backgrounds in a sliding window anomaly detection algorithm*, **Proc. SPIE** 7113, 711315, doi:10.1117/12.799365.
50. Blumberg, D.G., 2007, *High resolution X-band SAR imagery for precise agriculture and crop monitoring*, **European Space Agency, (Special Publication) ESA SP**, SP-644.
51. Jesus, J., Panagopoulos, T. and D.G Blumberg, 2006, *Principal component analysis as decision-support tool in Agriculture for factors-yield relations*, **Proceedings of the 1st Iberic conference in "Sistemas e Tecnologias de Informacao no Espaco Iberico”**, 2: 141-155.
52. Ohel, E., Rotman, S.R., Blumberg, D.G., and Sagiv, L., 2006. *Anomaly Gas Remote Sensing and Tracking Using a Field –Portable Imaging Thermal Radiometric Spectrometer,* **IEEE Convention of Electrical and Electronics Engineers in Isreal,** Eilat, ISRAEL, pp. 289-293.
53. [Kaplan, S.,](http://adsabs.harvard.edu/cgi-bin/author_form?author=Kaplan,+S&fullauthor=Kaplan,%20Shai&charset=UTF-8&db_key=PHY) Orlovsky, L., Blumberg, D.G. and E. Mamedov, 2006, *Assessment of pasture degradation in Turkmenistan using remote sensing,* **Proceedings of the SPIE**, Vol. 6366, 636603, doi: [10.1117/12.689580](http://adsabs.harvard.edu/cgi-bin/nph-abs_connect?fforward=http://dx.doi.org/10.1117/12.689580).
54. Jesus, J., Panagopoulos, T., Blumberg, D., Orlovsky, L. and Ben-Asher, J., 2006. *Open-source WebGIS for monitoring aeolian soil erosion in central Asia*. **Proceedings of the Int. Conf. on Energy, Environment, Ecosystems & Sustainable Development**, July 11-13, 2006 Athens, Greece, pp. 370-372.
55. Wenkart, R., Tsoar, H. & D.G Blumberg, 2005, *Aeolian sand incursion into the north western Negev during the Upper Quaternary*, **Geophysical Research Abstracts**, 7, 00775.
56. Ohel, E., Rotman, S.R., Blumberg, D.G., 2005. *A three-stage approach to large-target acquisition in spectral images*, **Electro-Optical and Infrared Systems: Technology and Applications II**; Ronald G. Driggers, David A. Huckridge; Eds. Proc. SPIE Vol. 5987: 257-263.
57. Ohel, E., Rotman, S.R., Blumberg, D.G., 2005. *Combining CFAR with anomaly detection at hyperspectral images*, **SAR and Multispectral Image Processing**, MIPPR 2005: Liangpei Zhang, Jianqing Zhang, Mingsheng Liao; Eds., Proc. SPIE Vol. 6043: 22-27.
58. Tsoar H., M. Shachak, and D.G. Blumberg., 2005. *Ecological Aspects of Vegetation Removal from the Coastal Sand Dunes of Israel*, Herrier J-L, J. Mees, A. Salman, J. Seys, H. van Nieuwenhuyse and I. Dobbelaere, (Eds) Proceedings **Dunes and Estuaries 2005** International Conference on Nature Restoration Practices in European Coastal Habitats, Belgium, VLIZ Special Publication 19, xiv +685pp., p 487-493.
59. Blumberg, D.G., Ohel, E. and S.R. Rotman, 2005, *Anomaly detection in noisy multi and hyper spectral images of urban environments*, Remote Sens. and Spatial Inf. **Sci., Proc. ISPRS 3rd URBAN Symp.**
60. Ohel, E., Rotman, S. R., and Blumberg, D. G. (2004). *Detection of large targets in noisy hyper-spectral images*. In **Electrical and Electronics Engineers in Israel, 2004. Proceedings. 2004 23rd IEEE Convention of (pp. 313-316).** IEEE.‏
61. Ohel, E., Rotman, S. R., and Blumberg, D. G. (2004). *Multipixel Anomaly Detection in Noisy Multispectral Images.* In **Proc. SPIE 5546, Imaging Spectrometry X, 390.**
62. Bukhel, B., Rotman, S.R., and Blumberg, D.G. (2004). *Reclustering Hyperspectral Data using Variance-based Criteria*. In **Electrical and Electronics Engineers in Israel, 2004. Proceedings. 2004 23rd IEEE Convention of** , vol., no., pp.309,312, 6-7.
63. [Ohel](http://il.linkedin.com/pub/eran-ohel/7/23b/52b), E., Rotman, S.R., Blumberg, D.B. and L. Sagiv, 2004, Anomaly gas remote sensing and tracking using a field-portable imaging thermal radiometric spectrometer, **Proceedings of SPIE,** 6395, 63950X.
64. Blumberg, D., Ben-Asher, J., Ronen, G., Sprintsin, M., Freilikher, V., Volfson, L., and Kotlyar, A. (2003). *Soil Water Assessment Using a P-band Scatterometer and ERS-2 SAR*. In **Applications of SAR Polarimetry and Polarimetric Interferometry (Vol. 529, p. 49)**.‏
65. Sprintsin, M., Blumberg, D.G., Ben Asher, J., Daniels, J and Linetsky, M, 2002.  *Estimation of Soil Water Content in the Negev Desert Open Areas Using Archived ERS SAR Images,* **IGARSS**, TORONTO, CANADA, pp. 2220-2222.
66. Blumberg, D.G., 2002. *Geographical Information Technologies and availability of Spatial Data in Israel*, eds. Dan G. Blumberg & Tal Svoray, **Geography Research Forum**, Vol. 22, pp. 82-91.
67. Rotman, S.R., Succary, R., and Blumberg, D.G., 2001. *Relating Geophysical Parameters to the Infrared Clutter Content of Images for Target Acquisition,* **Targets and Backgrounds,** ORLANDO, FL, pp. 134-140.
68. Ben-Dor, E., Goldschelger, N., Benyamini, Y., Blumberg, D.G, and Agassi, M., 2001. *Spectral Prediction of Soil Degradation Process Derived by Soil Physical Crust,* **IGARSS,** SYDNEY, AUSTRALIA, pp. 2547-2550.
69. Daniels J., Blumberg, D.G., Freiliker, V., Vulfson, L.D., Kotlyar, A. L., Neta, T., Ben-asher, J., Sprintsin, M., Ronen, G., and M. Linestky., 2001. *Radar Penetration in Soils: The Potential for Sub-SURFACE Observation of Both Earth and Mars*, **Conference on the Geophysical Detection of Subsurface Water on Mars,** pp.36-37**.**
70. Ben-Dor, E., Goldshlager, N., Benyamini, Y., Blumberg, D.G., and M. Agassi, 2000. *The Relationship Between Spectral Reflectance of Soil’s Physical Crust and Soil Degradation*, **14th International Conference on Applied Geologic Remote Sensing**, pp.505-512.
71. Freilikher, V., Kaganovskii, Y., Rosenbluh, M., Blumberg, M., 2000. *Optical Modeling of Microwave Scattering from Objects Buried in Dielectric Media with Rough Surfaces*, **IGARSS,** Vol.1: 35-38.
72. Blumberg, D.G., Freilikher, V., Lyalko, I., Wolfson, L.D., Kotlyar,A.L., Shevchenko, V.N., Ryabokonenko, A. D., 2000. *Soil moisture assessment by an airborne scatterometer in Chernobyl disaster area and Negev Desert*, **IGARSS,** Vol. V: 2011-214.
73. Neta, T., Blumberg, D.G, and Lazar, M., 1999. *Mapping Exposed and Buried River Channels Using Remote Sensing Techniques With an Example From Mubra Channel, The Negev, Israel,* **Remote Sensing for Earth Science, Ocean, and Sea Ice Applications,** Florence, Italy, pp. 495-503.
74. Blumberg, D.G., and V. Freilikher., 1998. *Soil Moisture Retrieval Using ERS Data in the Negev Desert, Israel; Preliminary Results*, Proceedings of the 2nd International Workshop on **Retrieval of Bio and Geo-physical Parameters from SAR Data for Land Applications**, European Space Agency, Estec, SP-441, 451-454.
75. Blumberg, D.G., 1997. "*Airborne Remote Sensing of Desert Aeolian Modified Terrain and Processes Using JPL AIRSAR*." Proceedings of the **3rd International Airborne Remote Sensing Conference**, pub. by ERIM International, Ann Arbor, Michigan, vol. 1: 1571- 1578.
76. Xu, P., Blumberg, D.G., and R. Greeley., 1995. *Preliminary Study Of Kelso Dunes Using AVIRIS, TM, And AIRSAR*, **Summaries of the Fifth Annual JPL Airborne Geoscience Workshop**, JPL Publications 95-1, 1, 159-161.
77. Greeley R., Blumberg, D.G., Dobrovolskis, A.R., Gaddis, L.R., Iversen, J.D., Lancaster, N., Rasmussen, K.R., Saunders, R.S., Wall, S.D., and B. White.*,* 1995. *Potential Transport of Windblown sand: Influence of Surface Roughness and Assessment with Radar*, Book Chapter, in **Desert Aeolian Processes**, ed. V. Tchakerian, Chapman and Hall, 75-99.
78. Blumberg, D.G., and R. Greeley., 1995. *New Observations of Bolivian Wind Streaks by JPL Airborne SAR; Preliminary Results,* **Summaries of the Fifth Annual JPL Airborne Geoscience Workshop**, JPL Publications 95-1, 3, 1-4.
79. Blumberg, D.G., and R. Greeley., 1993. *AIRSAR Views of Aeolian Terrain,* **Summaries of the Fourth Annual JPL Airborne Geoscience Workshop**, pp. 9-12.
80. Rasmussen, K.R., Wall, S., Greeley, R., Blumberg, D.G., and H.E. Mikkelsen, 1993. *Assessment of Aerodynamic Roughness over a Vegetated Surface Using Radar Backscatter*, Proceedings. **International Symposium on Remote Sensing and Global Environmental Change**, Part 1, 25th, I, 161- 171.
81. Blumberg, D.G. and A.J. Brazel., 1992. *Climate Uses of the PRISMS Network in Phoenix, Arizona*, AMS volume of the **fourth Arizona Weather Symposium**. Ed: S.P. Bennet, National Weather Service, Phoenix, pp. 81-87.
82. Blumberg, D.G., and R. Greeley., 1992. *Detecting Surface Roughness Effects on the Atmospheric Boundary Layer via AIRSAR Data: A Field Experiment in Death Valley, California*, **Summaries of the Third Annual JPL Airborne Geoscience Workshop**", Ed: J. van Zyl, Jet Propulsion Laboratory, NASA, Pasadena, Publication 92-14, Vol. 3, 43-45.

(d) Refereed articles and refereed letters in scientific journals.

‏

1. Cohen-Zada, A.L., Maman, S & Blumberg, D.G*.* (2017)[*Earth Aeolian wind streaks: Comparison to wind data from model and stations*](http://onlinelibrary.wiley.com/doi/10.1002/2016JE005242/epdf) J. Geophys. Res. Planets, 122 DOI: 10.1002/2016JE005242.
2. Isaacson, S., Ephrath, J.E., Rachmilevitch ,S., Maman, S., Ginat, H., Blumberg, D.G. (2017)[*Long and short term population dynamics of acacia trees via remote sensing and spatial analysis: Case study in the southern Negev Desert*](http://www.sciencedirect.com/science/article/pii/S0034425717302432) Remote Sensing of Environment 198 , 95–104 DOI:10.1016/j.rse.2017.05.035.
3. Gedalin, D., Oiknine, Y., August, I., Blumberg. D.G., Rotman, S.R., Stern. A.(2017) [*Performance of target detection algorithm in compressive sensing miniature Ultraspectral imaging compressed sensing system*](http://opticalengineering.spiedigitallibrary.org/article.aspx?articleid=2598000)Optical Engineering, Vol56, Issue 4, Special Section on Optical Computational Imaging, DOI:10.1117/1.OE.56.4.041312*.*
4. Oiknine, Y., August, I., Blumberg, D.G., Stern, A. (2017)  [*Compressive sensing resonator spectroscopy*](https://www.osapublishing.org/ol/abstract.cfm?uri=ol-42-1-25) [DOI: 10.1364/OL.42.000025](https://doi.org/10.1364/OL.42.000025) Vol. 42, No. 1 / January / Optics Letters.
5. Kozhoridze, G., Orlovsky, N., Orlovsky, L, Blumberg, D.G., Golan-Goldhirsh‏, A. 2016.*[Remote sensing models of structure-related biochemical and pigments for classification of trees‏](http://www.sciencedirect.com/science/article/pii/S0034425716303273)* DOI:10.1364/OL.42.000025 Remote Sensing of Environment 186, 184-195.‏
6. Cohen-Zada A.L. Blumberg, D.G., & Maman, S. 2016. [*Earth and Planetary Aeolian Streaks: A Review*](http://www.sciencedirect.com/science/article/pii/S1875963715300434). Aeolian Research, 20: 108-125, doi:10.1016/j.aeolia.2015.12.002.
7. O. Rozenstein, Zehava, S., Blumberg, D.G., & Adamowski, J. 2016. [*Investigating the backscatter contrast anomaly in synthetic aperture radar (SAR) imagery of the dunes along the Israel–Egypt border*](http://www.sciencedirect.com/science/article/pii/S0303243415300544). JAG, 46: 13-21, doi:10.1016/j.jag.2015.11.008
8. Isaacson, S., Rachmilevitchb, S. ,Ephrath ,J.E., Maman ,S.,Blumberg D.G. 2016. [*Monitoring tree population dynamics in arid zone through multiple temporal scales: integration of spatial analasis, change detection and field long term monitoring*](https://www.researchgate.net/profile/Shimon_Rachmilevitch/publication/307529945_MONITORING_TREE_POPULATION_DYNAMICS_IN_ARID_ZONE_THROUGH_MULTIPLE_TEMPORAL_SCALES_INTEGRATION_OF_SPATIAL_ANALYSIS_CHANGE_DETECTION_AND_FIELD_LONG_TERM_MONITORING/links/57d78b5a08ae5f03b494e9c3.pdf)*.* *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XLI-B7, XXIII ISPRS Congress, July 2016, Prague, Czech Republic*
9. R. Indoitu, G. Kozhoridze, M. Batyrbaeva, I. Vitkovskaya, N. Orlovsky, D. Blumberg, L. Orlovsky. 2015. [*Dust emission and environmental changes in the dried bottom of the Aral Sea*](http://dx.doi.org/10.1016/j.aeolia.2015.02.004). Aeolian Research, 17: 101-115, doi:10.1016/j.aeolia.2015.02.004
10. Kozhoridze, G., Orlovsky, N., Orlovsky, L., Blumberg, D. G., & Golan‐Goldhirsh, A. 2015. [*Geographic distribution and migration pathways of Pistacia–present, past and future*](http://onlinelibrary.wiley.com/doi/10.1111/ecog.01496/full), Ecography, 38: 001-014, doi: 10.1111/ecog.01496
11. Panagopoulos, T., de Jesus, J., Blumberg, D., & Ben-Asher, J. 2014. [*Spatial Variability of Durum Wheat Yield as Related to Soil Parameters in an Organic Field*](http://www.tandfonline.com/doi/pdf/10.1080/00103624.2014.919311). Communications in Soil Science and Plant Analysis 45(15): 2018-2031, doi: 10.1080/00103624.2014.919311.
12. Roskin, J., Blumberg, D.G., and Katra, I. 2014*.* [*Last millennium development and dynamics of vegetated linear dunes inferred from ground-penetrating radar and optically stimulated luminescence ages*](http://onlinelibrary.wiley.com/doi/10.1111/sed.12099/abstract), **Sedimentology,** 61(5): 1240-1260, doi:10.1111/sed.12099.
13. Roskin, J., Katra, I., and Blumberg, D.G., 2014. [*Particle-size fractionation of eolian sand along the Sinai-Negev erg of Egypt and Israel*](http://www.geosociety.org/news/pr/13-80.htm), **Geological Society of America Bulletin**,126(1-2): 47-65, doi: 10.1130/B30811.1.
14. Kaplan, S., Blumberg, D. G., Mamedov, E., & Orlovsky, L. 2014. [*Land-use change and land degradation in Turkmenistan in the post-Soviet era*](http://www.sciencedirect.com/science/article/pii/S0140196313002334), **Journal of Arid Environments**, 103: 96-106, doi:[10.1016/j.jaridenv.2013.12.004](http://dx.doi.org/10.1016/j.jaridenv.2013.12.004%22%20%5Ct%20%22doilink).
15. Genis, A., Vulfson, L., Blumberg, D.G., Sprinstin, M., Kotlyar, A., Freilikher, V., & Ben-Asher, J. 2013. [*Retrieving parameters of bare soil surface roughness and soil water content under arid environment from ERS-1,-2 SAR data*](http://www.tandfonline.com/doi/pdf/10.1080/01431161.2013.793862), **International Journal of Remote Sensing***, 34*: 6202-6215, doi:10.1080/01431161.2013.793862.
16. Danilina, I., Gillespie, A. R., Balick, L., Mushkin, A., Smith, M., & Blumberg, D.G 2013. [*Compensation for subpixel roughness effects in thermal infrared images*](http://www.tandfonline.com/doi/pdf/10.1080/01431161.2012.716919), **International Journal of Remote Sensing**, *34*(9-10): 3425-3436, doi:10.1080/01431161.2012.716919.
17. Muhs, D.R., Ruskin, J., Tsoar, H., Skipp, G., Budahn, J.R., Sneh, A., Porat, N., Stanley, J.D., Katra, I., & Blumberg, D.G. 2013. [*Origin of the Sinai-Negev erg, Egypt and Israel: mineralogical and geochemical evidence for the importance of the Nile and sea level history*](http://www.sciencedirect.com/science/article/pii/S027737911300084X), **Quaternary Science Reviews***, 69*: 28-48, doi:[10.1016/j.quascirev.2013.02.022](http://dx.doi.org/10.1016/j.quascirev.2013.02.022%22%20%5Ct%20%22doilink).
18. Roskin, J., Katra, I., & Blumberg, D.G. 2013. [*Late Holocene dune mobilizations in the northwestern Negev dunefield, Israel: A response to combined anthropogenic activity and short-term intensified windiness*](http://www.sciencedirect.com/science/article/pii/S1040618212032454), **Quaternary International***, 303*: 10-23, doi: 10.1016/j.quaint.2012.10.034.
19. Vulfson, L., Genis, A., Blumberg, D.G., Kotlyar, A., Freilikher, V., & Ben-Asher, J. 2013. [*Remote sensing in microwave and gamma ranges for the monitoring of soil water content of the root zone*](http://www.tandfonline.com/doi/pdf/10.1080/01431161.2013.793863), **International Journal of Remote Sensing***, 34*: 6182-6201, doi:10.1080/01431161.2013.793863.
20. Zheng, X., Shen, F., Zheng, S., Argaman, E., Blumberg, D., Ben-Asher, J., & Amir, S. 2012. [*Estimation of regional evapotranspiration and biomass production from remote sensing data by artificial neural network (ANN) method*](http://world-food.net/estimation-of-regional-evapotranspiration-and-biomass-production-from-remote-sensing-data-by-artificial-neural-network-ann-method/), **Journal of Food Agriculture & Environment***, 10*: 1558-1561.
21. Cohen, Y., Blumberg, D.G., and S.R. Rotman., 2012. [*Subpixel hyperspectral target detection using local spectral and spatial information*](http://spie.org/x648.html?product_id=965008), **J. Appl. Remote Sens**., 6: 16 pages, doi:10.1117/1.JRS.6.063508.
22. Gorelik, N., Blumberg, D.G., Rotman, S.R., and D. Borghys, 2012. [*Target detection using non-singular approximations for a singular covariance matrix*](http://www.hindawi.com/journals/jece/2012/628479/), **Journal of Electrical and Computer Engineering**, 7 pages, doi:10.1155/2012/628479.
23. Cohen, Y., Blumberg, D.G., and S.R. Rotman and Y. August, 2012. [*Evaluating sub-pixel target detection algorithms in hyper-spectral imagery*](http://www.hindawi.com/journals/jece/2012/103286/), Journal **of Electrical and Computer Engineering,** Article ID 103286, 15 pages, doi:10.1155/2012/103286.
24. L. Vulfson, A. Genis, D.G. Blumberg, M. Sprintsin, A. Kotlyar, V. Freilikher, J. Ben-Asher, 2012. [*Retrieval of surface roughness parameters of bare soil from the radar satellite data*](http://www.sciencedirect.com/science/article/pii/S0140196312002005), **Journal of Arid Environments**, 87: 77-84, ISSN 0140-1963, doi:10.1016/j.jaridenv.2012.07.006.
25. Melamed, G., Rotman, S.R., Blumberg, D.G., and Weiss, A.J, 2012. [*Anomaly detection in polarimetric radar images*](http://www.tandfonline.com/doi/pdf/10.1080/01431161.2010.550650), **International Journal of Remote Sensing**, 33(4): 1164-1189, doi:10.1080/01431161.2010.550650.
26. Gorelik, N., Blumberg, D.G., Rotman, S.R., Borghys, D. 2012.
[Target Detection Using Nonsingular Approximations for a Singular Covariance Matrix](http://delivery.acm.org/10.1145/2390000/2387799/p1-gorelik.pdf?ip=132.72.154.167&id=2387799&acc=NO%20RULES&key=0D17F1A88EABC760%2E55A916F3EA387FF4%2E4D4702B0C3E38B35%2E4D4702B0C3E38B35&CFID=856854450&CFTOKEN=47646887&__acm__=1477394726_8b8d553e2c53291a26a81f79a54f7699), **Journal of Electrical and Computer Engineering** Volume 2012, Article ID 628479, 7 pages
27. Roskin, J., Blumberg, D.G., Porat, N., Tsoar, H., & Rozenstein, O. 2012. [*Do dune sands redden with age? The case of the northwestern Negev dunefield, Israel*](http://www.sciencedirect.com/science/article/pii/S1875963711000887), **Aeolian Research***, 5*: 63-75, doi:10.1016/j.aeolia.2011.11.004.
28. Maman, S., Blumberg, D.G., Tsoar, H., Mamedov, B., and N. Porat, 2011. [*The Central Asian ergs: A study by remote sensing and geographic information systems*](http://www.sciencedirect.com/science/article/pii/S187596371100067X), **Aeolian Research**, 3 (3): 353-366, ISSN 1875-9637, doi:10.1016/j.aeolia.2011.09.001.
29. Roskin, J., Porat, N., Tsoar, H., Zander, A.M., and D.G. Blumberg, 2011. [*Age, Origin and climatic controls on vegetated linear dunes in the northwestern Negev Desert (Israel*](http://www.sciencedirect.com/science/article/pii/S0277379111000825)*),* **Quaternary Science** **Reviews**, 30(13-14): 1649-1674, doi:10.1016/j.quascirev.2011.03.010.
30. Maman, S., Orlovsky, L. and D.G Blumberg, 2011. [*A landcover change study of takyr surfaces in Turkmenistan*](http://www.sciencedirect.com/science/article/pii/S0140196311001042), **Journal of Arid Environments**, 75(9): 842-850, doi:10.1016/j.jaridenv.2011.04.002.
31. Roskin J., Tsoar, H., Porat, N. and D.G Blumberg, 2011. [*Palaeoclimate interpretations of Late Pleistocene vegetated linear dune mobilization episodes: evidence from the northwestern Negev dunefield*](http://www.sciencedirect.com/science/article/pii/S0277379111002642), **Quaternary Science Reviews**, 30 (23-24): 3364-3380, doi:10.1016/j.quascirev.2011.08.014.
32. Tsoar, H, and D.G, Blumberg, 2009. [*Dynamics of nebkhas superimposed on a parabolic dune and their effect on the dune dynamics*](http://www.sciencedirect.com/science/article/pii/S0140196309001256), **Journal of Arid Environments**, [73(11](http://www.sciencedirect.com/science?_ob=PublicationURL&_hubEid=1-s2.0-S0140196309X0008X&_cid=272559&_pubType=JL&view=c&_auth=y&_acct=C000004078&_version=1&_urlVersion=0&_userid=32401&md5=7ea4aeeb521133bc5f5337a82fd3a0ff)): 1014-1022, [doi:10.1016/j.jaridenv.2009.04.021](http://dx.doi.org/10.1016/j.jaridenv.2009.04.021).
33. Rubin, D.M., Tsoar, H., and Blumberg, D.G, 2008, [*A second look at western Sinai seif dunes and their lateral migration*](http://www.sciencedirect.com/science/article/pii/S0169555X07000955), [Geomorphology](http://www.sciencedirect.com/science/journal/0169555X),
[93(3-4](http://www.sciencedirect.com/science?_ob=PublicationURL&_hubEid=1-s2.0-S0169555X07X02046&_cid=271791&_pubType=JL&view=c&_auth=y&_acct=C000004078&_version=1&_urlVersion=0&_userid=32401&md5=e3a52e9ce91a223990ab3912e8f45e4d)): 335-342, [doi:10.1016/j.geomorph.2007.03.004](http://dx.doi.org/10.1016/j.geomorph.2007.03.004).
34. Ben Asher, J., Ephrath ,J.E., Shomron, M., Blumberg, D.G, 2008. [Cooling of Leafy Vegetables in Greenhouses](http://www.actahort.org/books/797/797_10.htm) In: C. Kubota and M Kachira (eds) Proceeding of the international workshop On greenhouse environmental control and crop production in semi arid regions. **ACTA Horticulture,** 797:87-95.
35. Katra, I., Blumberg, D.G, and H. Lavee, 2008. [*Soil moisture patterns in semiarid hillslopes: Linkage to surface water redistribution*](http://www.scopus.com/record/display.url?eid=2-s2.0-69549090138&origin=inward&txGid=C7845E0FFFA9D748453C003E1F65591C.mw4ft95QGjz1tIFG9A1uw%3a44), **Israel Journal of Earth Sciences**, 57(3-4): 281-289, doi:10.1560/IJES.57.3-4.281.
36. Katra, I., D.G. Blumberg., H. Lavee and P. Sarah, 2007*.* [*Topsoil moisture patterns on arid hillsides – Micro-scale mapping by thermal infrared images*](http://www.sciencedirect.com/science/article/pii/S002216940600549X), **J. of Hydrology**, 334 (3-4): 359-367, doi:10.1016/j.jhydrol.2006.10.023.
37. Blumberg, D.G. and G. Zhu, 2007. [*Using a hierarchical multi-resolution mechanism for classification and semantic extraction of land-use maps for Beer-Sheva, Israel*](http://www.tandfonline.com/doi/pdf/10.1080/01431160600993371), **International Journal of Remote Sensing**, 28(15): 3273-3289, doi:10.1080/01431160600993371.
38. L. Orlovsky, S. Kaplan, N. Orlovsky, D. Blumberg and E. Mamedov, 2006. [*Monitoring Land Use and Land Cover Changes in Turkmenistan using Remote Sensing*](http://library.witpress.com/pages/paperinfo.asp?PaperID=17203)*,* **WIT Transactions on Ecology and the Environment,** 99: 463-471, doi:10.2495/RAV060461
39. Ohel, E., Rotman, S.R. and D.G Blumberg, 2006*.* [*Anomaly gas remote sensing and tracking using a field-portable imaging thermal radiometric spectrometer*](http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=4115296)*,* **IEEE Convention of Electrical and Electronics Engineers in Isreal,** doi:[10.1109/EEEI.2006.321072](http://dx.doi.org/10.1109/EEEI.2006.321072%22%20%5Ct%20%22_blank).
40. Katra, I., D.G. Blumberg., H. Lavee and P. Sarah, 2006*.* [*Spatial* *distribution dynamics of topsoil moisture in shrub microenvironment after rain events in arid and semi-arid areas by means of high-resolution maps*](http://www.sciencedirect.com/science/article/pii/S0169555X06004417), **Geomorphology**, 86 (3-4): 455-464, doi:10.1016/j.geomorph.2006.09.020.
41. Jesus, J., Panagopoulos, T., Blumberg, D., Orlovsky, L. and Ben-Asher, J, 2006. [*Monitoring Dust Storms in Central Asia with Open-Source WebGIS Assistance*](http://w3.ualg.pt/~tpanago/public/webgis.pdf). **WSEAS Transactions on Environment and Development**, 2(6): 895-898.
42. Blumberg, D.G., V. Freilikher, J. Ben-Asher, J. Daniels, Yu. Kaganovskii, A. Kotlyar, L. Vulfson, 2006.[*Microwave subsurface remote sensing in the Negev desert: monitoring of soil water content*](http://www.tandfonline.com/doi/pdf/10.1080/17455030600703558)*,* **Waves in Random and Complex Media**, 16 (3): 179-203, doi:10.1080/17455030600703558.
43. Genis, A., D.G. Blumberg and J. Ben-Asher, 2006. [*Optimizing Application of Image Analysis Tools to Determine Physical Characteristics of Fine Roots*](https://www.jstage.jst.go.jp/article/ecb2005/44/1/44_1_11/_article)*,* **Environment Control in Biology**, 44: 11-20, doi:10.2525/ecb.44.11.
44. Blumberg, D.G, 2006.[*Analysis of large aeolian (wind-blown) bedforms using the Shuttle Radar Topography Mission (SRTM) digital elevation data*](http://www.sciencedirect.com/science/article/pii/S0034425705003500), **Remote Sensing of Environment**, 100: 179-189, doi:[10.1016/j.rse.2005.10.011](http://dx.doi.org/10.1016/j.rse.2005.10.011%22%20%5Ct%20%22doilink).
45. Katra, I., D.G. Blumberg, H. Lavee and Sarah, P., A, 2006. [*A method for estimating the spatial distribution of soil moisture of arid microenvironments by close range thermal infrared imaging*](http://www.tandfonline.com/doi/abs/10.1080/01431160500522684)*,* **International Journal of Remote Sensing**, 27 (12): 2599-2611, doi:10.1080/01431160500522684.
46. Blumberg, D. G., G. Ronen, J. Ben-Asher, V. Freilikher, L. D. Vulfson, and A. L. Kotlyar, 2006. [*Utilizing a P-band scatterometer to assess soil water saturation percent of a bare sandy soil*](http://www.sciencedirect.com/science/article/pii/S0022169405003173), **Journal of Hydrology**, 318: 374-378, doi:10.1016/j.jhydrol.2005.06.023.
47. Ohel, E., S.R. Rothman and D.G. Blumberg, 2006. [*Multi-pixel anomaly detection in noisy multi-spectral images*](http://opticalengineering.spiedigitallibrary.org/article.aspx?articleid=1076509), **Optical Engineering**, 45(2), 023604, doi:10.1117/12.557627.
48. Blumberg, D.G., T. Neta, N. Margalit, M. Lazar, V. Freilikher, 2004. [*Mapping Exposed and Buried Drainage Systems Using Remote Sensing in the Negev Desert, Israel*](http://www.sciencedirect.com/science/article/pii/S0169555X04000194)*,* **Geomorphology**, 61(3-4): 239-250, doi:10.1016/j.geomorph.2003.12.008.
49. Blumberg, D., Freilikher, V, Kaganovskii, Y.S, et al., 2004.
[*Backscattering of light from a dielectric layer on a reflecting substrate*](http://www.opticsinfobase.org/ol/abstract.cfm?uri=ol-29-12-1372)*,
Optics Letters*, 29 (12): 1372-1374, doi:10.1364/OL.29.001372.
50. Goubin, Z. and D.G. Blumberg, 2004. [*An urban open space extraction method: combining spectral and geometric characteristics*](http://www.springerlink.com/content/m5w2499g44404732/)*,***Geo-Spatial information science**, 7: 249-254, doi:10.1007/BF02828547.
51. Tsoar, H., D.G. Blumberg, and Y. Stoler, 2004. [*Elongation and Migration of Sand Dunes*](http://www.sciencedirect.com/science/article/pii/S0169555X03001612), **Geomorphology**, 57(3-4): 293-302, doi:10.1016/S0169-555X(03)00161-2.
52. Arbel, D., E. Cohen., M. Citroen., D.G. Blumberg and N.S. Kopeika, 2004. [*LandSat TM Satellite Image Restoration Using Kalman Filters[Implementation of atmospheric filters based on atmospheric MTF (Modulation Transfer Function) for satellite image restoration*](http://www.asprs.org/a/publications/pers/2004journal/january/2004_jan_91-100.pdf)*]*. **Photogrammetric Engineering and Remote Sensing**, 70(1): 91-100.
53. Daniels, J., D. G. Blumberg., L. D. Vulfson., A. L. Kotlyar, V. Freiliker, G. Ronen, and J. Ben-Asher, 2003. [*Microwave remote sensing of physically buried objects in the Negev desert: Implications for subsurface Martian exploration*](http://www.agu.org/pubs/crossref/2003/2002JE001868.shtml), **J. Geophys. Res**., 108 (E4), 8033, doi:10.1029/2002JE001868.
54. Daniels, J., D.G. Blumberg., M. Linetsky., L. D. Vulfson., A. L. Kotlyar., V. Freiliker., G. Ronen, 2003. [*Microwave Remote Sensing of Physically Buried Objects; Implications for Environmental Research*](http://www.agu.org/pubs/crossref/2003/2002JE001868.shtml), **Remote Sensing of Environment**, 86: 243-256, doi:10.1016/s0034-4257(03)00111-1.
55. Blumberg, D.G., Y. Lehahn., Y.Z. Yacobi, 2003. [*Utilizing FenYeng 1C (FY-1C) to monitor ocean color and water quality: a demonstration experiment in the Eastern Mediterranean*](http://www.tandfonline.com/doi/abs/10.1080/0143116021000047398), **International Journal of Remote Sensing**, 24: 1393-1399, doi:10.1080/0143116021000047398.
56. Ben-Dor, E., N. Goldshleger., Y. Benyamini., M. Agassi, and D. G. Blumberg, 2003. [*The Spectral Reflectance Properties of Soil’s Structural Crust in the SWIR spectral region (1.2-2.5µm*](http://onlinelibrary.wiley.com/doi/10.1046/j.1365-3121.2001.00294.x/abstract)*)*, **Soil Sciences Society of America**, 67: 289-299, doi:10.1046/j.1365-3121.2001.00294.x.
57. Blumberg, D.G., 2002. [*Geographic Information Technologies in Israel and Availability of Spatial Data in Israel*](http://www.mendeley.com/research/geographical-information-technologies-availability-spatial-data-israel/), **Geographic Research Forum**, 22: 92-90.
58. Tsoar, H., and D.G. Blumberg, 2002. [*Formation of Parabolic Dunes from Barchan and Transverse dunes along Israel’s Mediterranean Coast*](http://onlinelibrary.wiley.com/doi/10.1002/esp.417/abstract), **Earth Surface Processes and Landforms**, 27 (11): 1147-1161, doi:10.1002/esp.417.
59. McHone, J.F., R. Greeley, K.K. Williams, D.G. Blumberg, and R.O. Kuzmin, 2002. [*Space Shuttle Observations of Terrestrial Impact Structures Using SIR-C and X-SAR Radars*](http://digitalcommons.arizona.edu/objectviewer?o=uadc://azu_maps/Volume37/Number3/942c8278-ed0d-44f2-b65a-ecc30e44f708), **Meteoritics and Planetary Sciences**, 37 (3): 407-420, doi:10.1111/j.1945-5100.2002.tb00824.x.
60. Blumberg, D.G., V. Freilikher., I. Fuks., Y. Kaganovskii., A.A. Maradudin, and M. Rosenbluh, 2002. [*Effects of roughness on the retroreflection from dielectric layers*](http://www.ingentaconnect.com/content/tandf/wrm/2002/00000012/00000003/art00002), **Waves in Random Media**, 12 (3): 279-292, doi:10.1088/0959-7174/12/3/302.
61. Blumberg, D.G., V. Freilikher., Y. Kaganovskii., and A. A. Maradudin, 2002. [*Subsurface microwave remote-sensing of soil water content: field studies in the Negev Desert and optical modelling*](http://www.tandfonline.com/doi/abs/10.1080/01431160110116329), **International Journal of Remote Sensing**, 23 (19): 4039-4054, doi:10.1080/01431160110116329.
62. Goldshleger, N., E., Ben-Dor, Y., Benyamini, D.G., Blumberg, and M., Agassi, 2002. [*Spectral properties and hydraulic conductance of soil crusts formed by raindrop impact*](http://www.tandfonline.com/doi/abs/10.1080/01431160110115942), **International Journal of Remote Sensing**, 23 (19): 3909-3920, doi:10.1080/01431160110115942.
63. Zhu, G., and D.G. Blumberg, 2002. [*Classification Using ASTER Data and SVM Algorithms; the Case Study of Beer Sheva, Israel*](http://www.sciencedirect.com/science/article/pii/S0034425701003054), **Remote Sensing of Environment**, 80(2): 233-240, doi:10.1016/S0034-4257(01)00305-4.
64. Blumberg, D.G., and A. Sasson., 2001. [*Municipal Hotlines, and Automated Weather Stations as a Tool for Monitoring Bad Odour Dispersion: The Northern Negev Case*](http://www.sciencedirect.com/science/article/pii/S0301479701904724), **J. of Environmental Management**, 63:103-111, doi:[10.1006/jema.2001.0472](http://dx.doi.org/10.1006/jema.2001.0472%22%20%5Ct%20%22doilink).
65. Blumberg, D.G., and V. Freilikher., 2001. [*Soil Water-Content and Surface Roughness Retrieval Using ERS-2 SAR Data*,](http://www.sciencedirect.com/science/article/pii/S0140196301908092) **Journal of Arid Environments**, 49 (3): 449-464, doi:10.1006/jare.2001.0809.
66. Goldshleger,N., Ben-Dor, E., Benyamini, Y., Blumberg, D.G., and M. Agassi.,2001. [*Characterization of Soil's structural crust by spectral reflectance in the SWIR region*](http://onlinelibrary.wiley.com/doi/10.1046/j.1365-3121.2001.00294.x/abstract) *(1.2-2.5mm)*, **Terra Nova**, 13(1): 12-17, doi:10.1046/j.1365-3121.2001.00294.x.
67. Serbin, G., Or, D., and D.G., Blumberg, 2001. [*Thermodielectric Effects on Radar backscattering from Wet Soils*](http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=917920&userType=inst). **IEEE Transactions on Geoscience and Remote Sensing**, 39 (4): 897-901, doi:10.1109/36.917920.
68. Blumberg, D.G., Freilikher, V., Lyalko, I.V., Vulfson, L.D., Kotlyar, A.L., Shevchenko, V.N., and A.D. Ryabokonenko., 2000. [*Soil moisture (water-content) assessment by an airborne scatterometer; The Chernobyl disaster area and the Negev Desert*](http://www.sciencedirect.com/science/article/pii/S0034425799000875), **Remote Sensing of Environment,** 71: 309-319, doi:10.1016/s0034-4257(99)00087-5.
69. Anderson, F.S., Greeley, R., Xu, P., Lo, E., Blumberg, D.G., Haberley, R.M., and J. R. Murphy., 1999. [*Assessing the Martian Surface Distribution of Aeolian Sand Using a Mars general Circulation Model*](http://www.agu.org/pubs/crossref/1999/1999JE900024.shtml), **Journal of Geophysical Research**, 104 (E8): 18,891-19,002, doi:10.1029/1999je900024.
70. Blumberg, D.G., 1998. [*Remote Sensing of Desert Dune Forms by Polarimetric Synthetic Aperture Radar (SAR*](http://www.sciencedirect.com/science/article/pii/S0034425798000285)*)*, **Remote Sensing of Environment**, 65 (2): 204-216, doi:[10.1016/S0034-4257(98)00028-5](http://dx.doi.org/10.1016/S0034-4257%2898%2900028-5%22%20%5Ct%20%22doilink).
71. Blumberg, D.G. and Ronald Greeley., 1997. Corrigendum to: [*A Comparison of General Circulation Model Predictions to Sand Drift and Dune Orientations*](http://journals.ametsoc.org/doi/pdf/10.1175/1520-0442%281996%29009%3C3248%3AACOGCM%3E2.0.CO%3B2), **Journal of Climate**, 10: 1134, doi:[10.1175/1520-0442(1996)009<3248:ACOGCM>2.0.CO;2](http://dx.doi.org/10.1175/1520-0442%281996%29009%3C3248%3AACOGCM%3E2.0.CO;2).
72. Blumberg, D.G. and D, Jacobson., 1997. [*New Frontiers: Remote Sensing in Social Science Research*](http://link.springer.com/article/10.1007/s12108-997-1014-3), **The American Sociologist**, 28(3): 61-68, doi:10.1007/s12108-997-1014-3.
73. Greeley, R., Blumberg, D.G., McHone, J.F., Dobrovolskis, A., Iversen, J.D., Lancaster, N., Rasmussen, K.R., Wall, S.D., and B.R. White., 1997. [*Applications of Spaceborne Radar Laboratory data to the Study of Aeolian Processes*](http://www.agu.org/pubs/crossref/1997/97JE00518.shtml), **Journal of Geophysical Research,** 102 (E5):10,971-10,983, doi:10.1029/97je00518.
74. Blumberg, D.G. and R. Greeley., 1996. [*A Comparison of General Circulation Model Predictions to Sand Drift and Dune Orientations*](http://journals.ametsoc.org/doi/pdf/10.1175/1520-0442%281996%29009%3C3248%3AACOGCM%3E2.0.CO%3B2), **Journal of Climate**, 9: 3248-3259, doi:10.1175/1520-0442(1996)0092.0.CO;2.
75. Greeley, R., Blumberg, D.G., and S.H. Williams., 1996. [*Field Measurements of the Flux and Speed of Wind-blown Sand*](http://onlinelibrary.wiley.com/doi/10.1111/j.1365-3091.1996.tb01458.x/abstract), **Sedimentology**, 43: 41-52, doi:10.1111/j.1365-3091.1996.tb01458.x.
76. Greeley, R., and D.G. Blumberg., 1995. [*Preliminary Analysis of Shuttle Radar Laboratory (SRL-1) Data to study Aeolian Features and Processes*](http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=406678&userType=inst), **IEEE Transactions on Geoscience and Remote Sensing,** 33 (4): 927-933, doi:10.1109/36.406678.
77. Mchone, J.F., Blumberg, D.G., Greeley, R., and Underwood, JR., 1995. [*Space Shuttle Radar Images of Terrestrial Impact Structures- SIR-C/X-SAR*](http://adsabs.harvard.edu/abs/1995Metic..30R.543M)*,* **Meteoritics,** 30 (5): 543-543.
78. Edgett, K.S. and D.G. Blumberg., 1994. [*Star and Linear Dunes on Mars*](http://www.sciencedirect.com/science/article/pii/S0019103584711973), **ICARUS**, 112 (2): 448-464, doi:10.1006/icar.1994.1197.
79. Blumberg, D.G. and R. Greeley., 1993. [*Field Studies of Aerodynamic Roughness Length*](http://www.sciencedirect.com/science/article/pii/S0140196383710414), **Journal of Arid Environments**, 25: 39-48, doi:10.1006/jare.1993.1041.
80. Tsoar, H. and D.G. Blumberg., 1991. [*The Effect of the Beach Cliff on Encroachment of Aeolian Sands*](http://link.springer.com/chapter/10.1007/978-3-7091-6703-8_10), **Acta Mechanica**, Suppl. 2: 131-146, doi:10.1007/978-3-7091-6703-8\_10.
81. Tsoar, H. and D.G. Blumberg., 1990. *The Effect of the Beach Cliff on Encroachment of Aeolian Sands Inland Along the Israeli Ashqelon-Ashdod Beach*. (In Hebrew), **Offaqim Begiographia, Horizons in Geography**, Haifa, IL, 31: 155-168.

 (e) Published scientific reports and technical papers

1. Blumberg D.G., Ben-Asher, J., Freilicher, V., 2006. *Application of remote sensing in microwave, gamma and thermal IR- range for fast control of water content within soil root-zone and crops on an example of wheat,*Final report, **The Ministry of Science and technology**.
2. Ohel E., Rothman, S.R. and Blumberg, D.G., 2004, *Detection of large targets in noisy hyper-spectral images,* **Electrical and Electronics Engineers in Israel**. Proceedings. 23rd IEEE convention. 6-7 September, pp. 313-316.
3. Blumberg, D.G., 2001. *Radar Remote Sensing (SIR-C) Observations of the Nahal Secher Forestation Site; possible Response to Dew Formation,* The Role of Dew in the Hydrological Cycle and Ecological Systems of the Negev, Report on a workshop held at the Sde-Boker campus of Ben-Gurion University, under the sponsorship of the BGU Center for Water Science and Technology (**CWST**), 24 January, Tami Matus (ed.), 16-17.
4. Blumberg, D.G. and A. Sasson., 1999. *Environmental Aspects of the Wind Regime of Machteshim and Ramat Hovav*, **Negev Center for Regional Development**, Working Paper No. 11, p. 35.
5. Greeley, R., N. Lancaster., L. Gaddis., D.G. Blumberg., A. Dobrovolskis., R.S. Saunders, S. Wall, J.D. Iversen, B.R. White, and K.R. Rasmussen, 1991. *Use of radar to assess aeolian processes*, Reports of planetary geology and geophysics program; 1990. **NASA**, Planetary Geoscience Program, United-States. NASA-Technical-Memorandum. 4300. Pp. 194.
6. Greeley, R., D.G. Blumberg, J.F. McHone, A. Dobrovolskis, J.D. Iversen, N. Lancaster, K.R. Rasmussen, S.D. Wall, J. van Zyl, B.R. White, and H. Zebker, 1997. *Spaceborne Radar Laboratory (SRL) Studies of Aeolian Processes*, Final Report, **NASA**.

(g) Classified articles and reports

1. Blumberg, D.G., 1998. Global Change and Remote Sensing, book review, Geographical Research Forum, Vol.18: 109-110.
2. Blumberg, D.G., 1997. A Remote Sensing Evaluation of the Northern Negev Area, Basic Data Report No. 1, Shivta-Rogem Site Investigation for a Nuclear Power Plant. The Israel Electric Corporation Ltd., Nuclear Engineering Department, p. 30.

• **Lectures and Presentations at Meetings and Invited Seminars not Followed by Published Proceedings**

(a) Invited plenary lectures at conferences/meetings

2002- Blumberg, D.G., *Subsurface Microwave Remote Sensing of Soil Water Content: Field Studies in the Negev Desert and Optical Modeling*, **The Association of American Geographers, 98th Annual Meeting**, March 29-23, 2002, Los Angeles CA, p. 52 (abstract).

1999- Blumberg, D.G., *Arid Zone Soil Moisture Regime as Seen by Remote Sensing*, Workshop on Transport and Clean Up Processes in the Unsaturated Zone under dry-land conditions, Sde Boker.

1995- Blumberg, D.G., and R. Greeley, *Study of Aeolian Processes from the Spaceborne Radar Laboratory,* **American Geophysical Union**, Baltimore, (invited paper), EOS, Vol. 76,(17): 196.

1995- Blumberg, D.G., and R. Greeley, *Study of Potential Windblown Processes Using SIR-C/X-SAR: Preliminary results*, **IEEE** **PIERS- Progress In Electromagnetics Research Symposium**, University of Washington, Seattle WA, (invited paper).

(b) Presentation of papers at conferences/meetings (oral or poster)

1. Y. August., D.G. Blumberg, and S.R. Rotman, *Identifying persistent scatterers in open and natural areas*, PolInSAR 2011, The European Space Agency, ITALY, in process (Poster).
2. Y. August., D.G. Blumberg, and S.R. Rotman, *Fine registration base on the Fourier domain for Gaussians signals*, International Journal of Remote Sensing (in process).
3. Y. August., D.G. Blumberg, and S.R. Rotman, *Using the PCA method for the selection of PSC target in the open fields*, International Journal of Remote Sensing (in process).
4. Y. August., D.G. Blumberg, and S.R. Rotman, *Subpixel High Accuracy Image Registration for Radar Interferometry Processes*, ISPRS 2010, Haifa, Israel, 2010.
5. Y. August., D.G. Blumberg, and S.R. Rotman, *High Accuracy Subpixel*  *Image Registration for Radar Interferometry Process,* ISPRS 2010, University of Haifa, ISRAEL, 2010 (Poster).
6. Blumberg, D.G., Rotman, S.R, and M. Hetz, *Estimation of Vegetation Parameters from Polarimetric SAR Data,* ISPRS Archive Vol. XXXVIII, Part 4-8-2-W9, “Core Spatial Databases- Updating, Maintenance and Services- from Theory to Practice”, Haifa, Israel, 2010.
7. Y. August., R. Aviram., D.G. Blumberg, and S.R. Rotman, *Interferogram Creation Process and Extracting Environmental Information from the Decorrelation Data*, CARESS 2009, Weizmann Institute of Science, ISRAEL (Poster).
8. Blumberg, D.G., Orlovsky, L, and T. Panagopoulos, *Monitoring the Aral Sea Landscape Change*, 4th IASME/WSEAS International Conference on ENERGY, ENVIRONMENT, ECOSYSTEMS and SUSTAINABLE DEVELOPMENT (EEESD'08), Algarve, Portugal, June 11-13, 2008.
9. Maman, S., Orlovsky, L., Blumberg, D.G., Berliner, P., and Mamedov, B., Monitoring Indigenous Water Harvesting Systems on Takyrs in Turkmenistan by Remote Sensing. The Association of Israel Geographers, Hebrew University, Israel, 2006 (Poster).
10. Ardon, K., Tsoar, H., and Blumberg, D.G., *Dynamics of the Ashdod Nizzanim Nebkha dunes*. The Association of Israel Geographers*,* Hebrew University, Israel, 2006.
11. Monitoring Indigenous Water Harvesting Systems on Takyrs in Turkmenistan by Remote Sensing, The Israel Geographic Association (IGA). Hebrew University, IL (Poster).
12. Ardon, K., Tsoar, H., and Blumberg, D.G., *Dynamics of the Ashdod Nizzanim Nebkha dunes*. Sand conference- Israel Nature and Parks authority, Ashdod, 2006.
13. Ardon, K., Tsoar, H., and Blumberg, D.G. *Dynamics of the Ashdod Nizzanim Nebkha dunes*. CARESS 2005, May 29, Weizmann Institute of Science, Rehovot, Israel, 2005.
14. Sherman, M. and Blumberg, D.G. CARESS 2005, May 29, Weizmann Institute of Science, Rehovot, Israel, 2005.
15. Ardon, K., Tsoar, H., and Blumberg, D.G. *Dynamics of the Ashdod-Nizzanim Coastal dunes from ERS imagery, aerial photographs, and ground measurements*. MERIS (A)ATSR Workshop 2005, September 25-30, ESARIN center, Frascati, Rome Italy, 2005 (Poster).
16. Blumberg, D.G., Yacoby, Y., Natan, A., Monitoring Phytoplankton in Lake Kinneret by Satellite Remote Sensing. The Water Commission Meeting, 24 May, Ma’ale Hachamisha, Israel, 2004 (Hebrew).
17. Blumberg, D,G., Dadashev, A., Dubinsky, Z.,  Iluz, D., Sokoletsky, L., Yacobi, Y.,  *Mapping variability in chlorophyll “a” concentrations in the Red Sea Gulf of Eilat by in-situ measurements and remote sensing: a 2-decade survey,*  I IAAS Symposium,  2 June, Bar Ilan University, Ramat-Gan, Israel, 2004.
18. Ardon, K., Brandt, N., Blumberg, D.G., Tsoar, H., Cartographic Maps in the Geomorphologic Research Service, Haifa University, 2004 (Hebrew).
19. Amir, S., Blumberg, D.G., Ben-Asher, J., Monitoring Spatial and Temporal Plant Cover by Remote Sensing Tools: A Synergistic Approach using Visible, Infra-red and Microwave Region, GLOWA- Jordan River, 18-22 April, Potsdam, Germany, 2004 (Poster).
20. Tamir, G., Ben-Asher, J., Blumberg, D.G., *Salinization of Soil and Plants on Loess Soil,* GLOWA- Jordan River, 18-22 April, Potsdam, Germany, 2004 (Poster).
21. Amir, S., Blumberg, D.G., Ben-Asher, J., [*Monitoring Spatial and Temporal Plant cover by Remote Sensing Tools in the Visible, Infra-Red and Microwave Regions*,](http://convention.allacademic.com/aag2004/view_paper_info.html?pub_id=843&part_id1=26421) **The 100th AAG Annual Meeting, 14-19 March, Philadelphia, PA, USA, 2004.**
22. **Natan, A,** Blumberg, D.G., Yacobi, Y., *Monitoring Phytoplankton in Lake Kinneret by Satellite Remote Sensing***, The 100th AAG Annual Meeting, 14-19 March, Philadelphia, PA, USA, 2004.**
23. Amir, S., Blumberg, D.G., Ben-Asher, J., *Monitoring Spatial and Temporal Variations in Plants Cover by Remote Sensing Tools,* The Association of Israel Geographers, December 21-23, Bar-Ilan University, Israel, 2003 (Poster In Hebrew).
24. Tamir, G., Ben-Asher, J., Blumberg, D.G., *Salinization of Soil and Plants on Loess Soil,* December 21-23, Bar-Ilan University, Israel, 2003 (In Hebrew).
25. Ohel, E., Bukhel, B., Rotman, S.R., *Detection of Large Targets in Hyperspectral Images,* Geodesy, Mapping and GIS combine with ILSPRS, December 17-18, Shphayim, Israel, 2003.
26. Amir, S., Blumberg, D.G., Ben-Asher, J., *Monitoring Spatial and Temporal Variations in Plants Cover by Remote Sensing Tools,* Geodesy, Mapping and GIS combine with ILSPRS, December 17-18, Shphayim, Israel, 2003 (Poster In Hebrew).
27. Amir, S., Blumberg, D.G., Ben-Asher, J., *Monitoring Spatial and Temporal Variations in Plants Cover by Remote Sensing Tools,* Geodesy, Mapping and GIS combine with ILSPRS, December 17-18, Shphayim, Israel, 2003 (Poster In Hebrew).
28. **Natan, A,** Blumberg, D.G., Yacobi, Y., *Monitoring Phytoplankton in Lake Kinneret by Satellite Remote Sensing***,** Geodesy, Mapping and GIS combine with ILSPRS, December 17-18, Shphayim, Israel, 2003 (In Hebrew).
29. Ohel, E., Bukhel, B., Rotman, S.R., *Detection of Large Targets in Hyperspectral Images,* Geodesy, Mapping and GIS combine with ILSPRS, December 17-18, Shphayim, Israel, 2003.
30. Dadashev, A., Blumberg, D,G.,  Dubinsky, Z.,  Iluz, D., Sokoletsky, L., Yacobi, Y., *A Review of  Chlorophyll “a” concentration in the Gulf  of Eilat (Aqaba) open waters by in situ monitoring and Remote Sensing derived data from the past two decades,* II Plankton Symposium, 16-19 October, Vigo, Spain, 2003.
31. Argaman, E; Amir, S. ; Tamir, G.; Blumberg, D. G.; Ben-Asher, J.; Sprintsin, M.,*Evaluation of Vegetation and Surface Energy Balance using Remote Sensing for climate change studies: A case study of The Negev Desert, Israel.***,** GLOWA- Jordan River, 16-20 June, Kfar- Giladi, Israel, 2003 (Poster).
32. Tamir, G., Ben-Asher, J., Blumberg, D.G., *Salinization of Soil and Plants on Loess Soil,* CARESS 2003, June 11, Weizmann Institute of Science, Rehovot, Israel, 2003 (Poster).
33. Amir, S., Blumberg, D.G., Ben-Asher, J., *Monitoring Spatial and Temporal Plant Cover by Remote Sensing Tools: A Synergistic Approach Using Visible, Infra-Red and Microwave Region*, CARESS 2003, June 11, Weizmann Institute of Science, Rehovot, Israel, 2003 (Poster).
34. Argaman, E., Linetsky, M., Amir, S., Tamir, G., Blumberg, D. G., Ben-Asher, J., Sprintsin, M., Revivo, G**.**,*Evaluation of Vegetation and Surface Energy Balance using Remote Sensing for climate change studies: A case study of The Negev Desert, Israel.***,** EGS-AGU-EUG Joint Assembly**,** 06 - 11 April, Nice, France, 2003 (Poster).
35. Blumberg, D.G., Ben-Asher, J., Freilikher, V., *Soil water assessment using a P-Band scatterometer and ERS-SAR,* POLinSAR, Workshop on application of SAR Polarimetry and Polarimetric Interferometry, January 14-16, 2003, Italy.
36. Blumberg, D.G., Ben-Asher, J., Daniels, J., Sprintsin, M., Ronen, G., Amir, S., Linestky, M., Freilikher, V., Kotlyar, A.L., Volfson, L.D., *Reconstructing soil moisture maps using* *microwave remote sensing*, The International Exhibition for Environmental Technologies, December 17-18, 2002, p. 3, Tel-Aviv.
37. Sapir, Y., Ben-Asher, J., Blumberg, D.G., *The natural vegetation in Israel as in indicator for climate change*, The International Exhibition for Environmental Technologies, December 17-18, 2002, p. 35, Tel-Aviv.
38. Blumberg, D.G., Ben-Asher, J., Daniels, J., Sprintsin, M., Ronen, G., Amir, S., Linestky, M., Freilikher, V., Kotlyar, A.L., Volfson, L.D., *Reconstructing soil moisture maps using* *microwave remote sensing*, The Association of Israel Geographers, December 1-3, 2002, Beer Sheva, p. 43.
39. Sapir, Y., Ben-Asher, J., Blumberg, D.G., *The natural vegetation in Israel as in indicator for climate change,* The Association of Israel Geographers, December 1-3, 2002, Beer Sheva, p. 104.
40. Sprintsin, M., Blumberg, D.G., Ben-Asher, J., *Mapping the soil water content of open area in the NEGEV using archival ERS SAR images*, The Association of Israel Geographers, December 1-3, 2002, Beer Sheva, p. 105.
41. Daniels, J., D.G. Blumberg, G. Ronen, L.D. Volfson, V. Frielikher, A.L. Kotlyar, J. Ben-Asher, M. Sprintsin, and M. Linestky, *Microwave radar penetration in soils: remote detection of physically buried object*, The Association of Israel Geographers, December 11-13, 2001, Tel-Aviv, p. 126.
42. Goldshlager, N., E. Ben-Dor, Y. Benyamini, D.G. Blumberg, and M. Agassi, *The Relationship Between the Soil Structural Crust and the Reflectance in the SWIR Region*, The Association of Israel Geographers, December 11-13, 2001, Tel-Aviv.
43. Sprintsin M., Blumberg D.G., J. Ben-Asher, and J. Daniels, *Soil water content Retrieval from Archival ERS images*, The Association of Israel Geographers, December 11-13, 2001, Tel-Aviv.
44. Blumberg, D.G., M. Raz, Yoav Lehan, Y. Yacobi, and A. Gitelson, *The Potential Use of Remote Sensing to Monitor Water Quality in Israel*, The Association of American Geographers, 97th Annual Meeting, February 27 – March 3, 2001, New York, p. 81.
45. Blumberg D.G., and V. Freilikher, S*oil Moisture Measurements by Synthetic Aperture Radar and Scatterometers in the Arid and Semi-Arid Environment*, ISPRS, 2000, Amsterdam, the Netherlands, p. 21-26.
46. Blumberg D.G., Goldshleger, N., Ben-Dor, E., Benyamini, Y, and M. Agassi, *Assessing of Soil Crusting Process in a Semiarid Environment, using Soil Reflectance Spectroscopy in The Swir Region,* Second EARSeL Workshop on Imaging Spectroscopy, Enschede, 2000.
47. Blumberg D.G., and H. Tsoar, *Morphologic Changes in the South Coast Plain of Israel During the last 50 years in light of Changes in Land Use; a Possible Model for Desertification Processes Combating*, The International Exhibition for Environmental Technologies, Israel Society for Ecology & Environmental Quality Sciences (ISEEQS), May 1-3, 2000, Tel-Aviv, Israel, p. 137 (In Hebrew).
48. Lehan, Y., D.G., Blumberg, A. Gittelson, and Z. Ben-Avraham, *The Use of Remote Sensing Methods for Water Quality Monitoring in the Mediterranean Sea and The Red Sea*, The International Exhibition for Environmental Technologies, Israel Society for Ecology & Environmental Quality Sciences (ISEEQS), 2000, May 1-3, Tel-Aviv, Israel, p. 219 (In Hebrew).
49. Goldshlager, N., E. Ben-Dor, Y. Binyamini, D. G. Blumberg, M. Agasi, *The Influence of the Soils Physical Crust on Spectral Reflectance in the SWIR Band*, The International Exhibition for Environmental Technologies, Israel Society for Ecology & Environmental Quality Sciences (ISEEQS), May 1-3, 2000, Tel-Aviv, Israel, p. 140 (In Hebrew).
50. Zhu, G., and D. G. Blumberg, *The Composition of the Output Layers Architecture in a Back-Propagaton (BP) Neural Network for Remote Sensing Image Classification*, ISPRS, 2000, Amsterdam, The Netherlands, p. 254-260.
51. Freilikher, V., Yu. Kaganovskii, E. Kanzieper, D. G. Blumberg, *Scattering from irregular dielectric layers with strong reflectors*, PIERS, 2000, p.211.
52. Freilikher, V., Yu. Kaganovskii, and D.G. Blumberg, *Optical modeling of microwave scattering from objects buried in dielectric media with rough surfaces*, IGARSS 2000.
53. Tsoar, H., and D.G. Blumberg, 1999, *The transformation of barchans to parabolic dunes – the Israeli coastal dune case*, Symposium on Process Geomorphology, Amsterdam, Holland, p.14.
54. Neta, T., D.G., Blumberg, and M. Lazar, 1999, *Mapping exposed and buried river channels using remote sensing techniques with an example from Mubra channel, the Negev*, Israel, The Eos/SPIE symposium on Remote Sensing, Florence Italy, p. 3868-61 (poster and manuscript).
55. Neta T., and D.G., Blumberg, 1999, *Mapping exposed and buried river channels using remote sensing techniques with an example from Mubra channel*, the Negev, Israel, Haifa University, Israel Association of Geographers, Haifa, Israel (poster).
56. Neta T., D.G., Blumberg & M., Lazar, 1998, *Mapping Exposed and Buried River Channels Using Remote Sensing Techniques With an Example From Mubra Channel*, The Negev**,** Drainage Basin Dynamics and Morphology, Jerusalem, Israel, p. 46 (poster).
57. Blumberg, D.G., Neta, T.,Lazar, M., and Ben-Avraham, Z., (1997),SAR *Penetration and its Correlation to Shallow Geophysical Methods: Applications in Middle-Eastern Environments*, Bar Ilan University, Israel association of Geographers , Ramat Gan, Israel, (Poster).
58. Barzilay E., D.G. Blumberg, and H. Tsoar, 1999, *Geomorphic changes of the Ashdod coastal dunes that occurred through the last 50 years by aerial photographs and remote sensing, the Negev, Israel*, The Eos/SPIE symposium on Remote Sensing, Florence Italy, p. 62 (poster).
59. Blumberg D.G. and V. Freilikher, 1999, *A P-band Scatterometer Experiment to Assess Soil Moisture in over Agricultural Land in The Negev Desert*, ERIM International Exhibition and Conference on Airborne Remote Sensing, Ottawa, (Interactive).
60. Blumberg D.G. and V. Freilikher, 1999, *Soil Moisture Retrieval Using ERS-2 data in the Negev Desert, Israel*, American Association of Geographers, Hawaii, (Oral).
61. Barzilai E., Blumberg D.G. & Tsoar H., 1998, *The Dynamic and the Morphological Changes that have been in Ashdod Sand Dunes in the last 50 years*, Bar Ilan University, Israel association of Geographers , Ramat Gan, Israel, (Poster).
62. Kalhamar B-S., Blumberg D.G. and Zilberbush M., *Characterizing Soil Properties Received from Spectral Curves and Laboratory Measurements in Zikim – Beer-Sheva Intersect*, Israel association of Geographers , Bar Ilan University, Ramat Gan, Israel (Poster).
63. Neta T., Blumberg D.G. and Lazar M., 1999, *Mapping Buried and Surface Channels by Remote Sensing Methods: An Example of Mubra Channel in the Negev*, Israel Association of Geologists , Dead Sea, Israel, (Poster).
64. Revivo G., Blumberg D.G. and Tsoar H., 1998, T*he Use of Radar Remote Sensing (ERS-2) for Mapping Microtopographic Roughness by Reference to Aeolian Processes: An Example from the Revivim – Tzeelim Area*, Israel association of Geographers, Bar Ilan University, Ramat Gan, Israel, (Poster).
65. Serbin G. and Revivo G., 1999, *Comparison of Synthetic Aperture Radar (SAR) Data with NOAA AVHRR Derived NDVI in the Gaza-Negev-Sinai Border Regions*, **Weitzman Institute**, Israel, (Poster).
66. Blumberg D.G. and V. Freilikher, 1998, *Soil Moisture Retreival Using ERS Data in the Negev Desert; Preliminary Results*, Second International Workshop on Retrieval of Bio- and Geo-Physical Parameters from SAR Data for land Applications**,** ESTEC, Nordwijk (Interactive).
67. Blumberg D.G., 1998, *Applications of Spaceborne SAR to Studies of Arid and Semi-Arid Environments*, **Global Change Earth Observation, and Lidar**, Tel-Aviv, p. 33, (Oral).
68. Blumberg D.G., M. Fix, V. Freilikher, 1998, A scatterometer experiment to detect soil moisture in an arid environment, ***ILSPRS***, (in Hebrew), Tel-Aviv. (Oral).
69. Blumberg D.G., M. Fix, V. Freilikher, 1998, *A low cost microwave CWFM scatterometer experiment to detect soil moisture in an arid environment*, **American Geophysical Union**, EOS suppl., S78, Boston. (Poster).
70. Greeley R., D.G. Blumberg, J.F. McHone, A. Dobrovolskis, J.D. Iversen, N. Lancaster, K.R. Rasmussen, R.S. Saunders, J. vanZyl, S.D. Wall, B.R. White, H.A., Zebker, 1997, *Spaceborne radar laboratory (SRL) studies of aeolian features and processes*, **SIR-C/X-SAR meeting in Florence** (Oral).
71. McHone, J.F., K.K. Williams, R. Greeley, K.R. Rasmussen, and D.G. Blumberg, *Spaceborne Radar Measurements of Surface Soil Moisture and Aerodynamic Roughness: The Denmark Test Site*, Geological Society of America, 1997, (oral).
72. McHone, J.F., R. Greeley, D.G. Blumberg, 1997, *Comparison of Aerodynamic Roughness (Z0) values from Wind Measurements and SRL Radar; Western U.S. and Namibian Deserts*, **Lunar and Planetary Science Conference**, XXVII, p. 917-918 (Oral).
73. Aharoni, B, D. Ward, and D.G. Blumberg, *Geographic Information System Usage to Understand Desertification in Namibia*, **Association of Israel Geographers**, p. 27-28, Tel-Aviv University, 1996, (poster).
74. McHone, J.F., R. Greeley, and D.G. Blumberg, 1996, SIR-C/X-SAR studies; Impact and Aeolian Features, Borkou Region Northern Chad, Lunar and Planetary Science Conference, XXVIII, p. 849-850. (Oral).
75. Blumberg, D.G., *The SIR-C/X-SAR Project; Analysis of SAR Data for studying Climate Change Geologic History from Impact Craters*, **Association of Israel Geographers**, p. 36, Tel-Aviv University, 1996, (oral).
76. Blumberg, D.G. and O. Yekutieli, *Political Boundaries in Remote Sensing Images*, **Association of Israel Geographers**, p. 37, Tel-Aviv University, 1996, (poster).
77. Kuzmin, R.O., N.N. Bobina, R. Greeley, D.G. Blumberg, and J.F. McHone, 1995, *"Radar Signature as Indicator of Drainage Networks of Zhamanshin Crater Morphostructure"*, **Brown - Vernadsky Microsymposium**, Vernadsky Institute, Moscow, 22, p. 53-54, (oral).
78. D.G. Blumberg, J.F. McHone, R. Kuzmin, and R. Greeley, 1995, "*Radar Imaging of Impact Craters by SIR-C/X-SAR,”* **Lunar and Planetary Science Conference**, XXVI, p. 139-140. (Poster).
79. McHone, J.F., Blumberg, D.G., Greeley, 1995, "*Africa Climate Changes; Constraints Revealed by Impact Craters on Shuttle Radar*" **American Geophysical Union,** 76, p. 337,(oral).
80. McHone, J.F., Blumberg, D.G., Greeley, R., Underwood, R., 1995, *"Orbital Radar Images of Libyan Impact Structures,”* **Geological Society of America**, vol. 27, p. 6, (oral).
81. McHone, J.F., J.R.Underwood, Jr., D.G. Blumberg, R.Greeley, 1995, *"Space Shuttle Radar Images of Terrestrial Impact Structures: SIR-C / X-SAR"*, **Meteoritics vol. 30,** 5, p. 543, (oral).
82. Greeley, R., D.G. Blumberg, J.F. McHone, R. Kuzmin, B. Ivanov, J. Garvin, R. Grieve, S.D. Wall, 1995, *"SRL-1: Radar Scenes of Impact Craters"*, **American Geophysical Union**, Baltimore, EOS, Vol. 76, 17, p. 197, (oral).
83. Blumberg, D.G., R. Greeley, N. Lancaster, C. Breed, G. Schaber, and J. McCauley, 1995, "*Spaceborne Radar-Imaging of Dune Fields - New Results from the SIR-C/X-SAR Mission*", **Association of American Geographers**, Chicago, IL, p. 26. (Oral).
84. Edgett K.S., and D. G. Blumberg, 1994, "*Found, Star and Linear Dunes on Mars*,” **Lunar and Planetary Science Conference**, XXV, p. 341-342. (Oral).
85. Blumberg D.G., and R. Greeley, 1994, "*Venus: Influence of surface roughness on the threshold for windblown sand derived from Magellan data*", **Lunar and Planetary Science Conference**, XXV, p. 129-130. (Poster).
86. Blumberg D.G., and R. Greeley, 1994, *"Spaceborne Radar Laboratory-1; Estimates of Aerodynamic Roughness"*, **Geological Society of America**, (in) Remote Sensing: New Results from SIR-C/X-SAR: Geology from Spaceborne Radar, Seattle, Washington, p. A128, (oral).
87. Blumberg D.G., and R. Greeley, 1994, *"Dunes - A Synthetic Aperture Radar (SAR) View,”* International Society of Photogrammetry and Remote Sensing Commission II, Ottawa, paper #263, (oral).
88. Blumberg D.G., and R. Greeley, 1994, " *A GCM Simulation of Aeolian Transport*", **Response of Aeolian Processes to Global Change**, Desert Studies Center, Desert Research Institute, Occasional Paper No.2, Zzyzx, California, p. 13. (Poster).
89. Greeley, R., D.G. Blumberg, and S. H. Williams, 1994, " *Field Measurements of Active Windblown Sand*", **Response of Aeolian Processes to Global Change**, Desert Studies Center, Desert Research Institute, Occasional Paper No.2, California, p. 47-48 (oral).
90. Hartmann, D., D.G. Blumberg, and R. Greeley, 1994, “The Pismo Beach Experiment; Grain Size Characteristics and Patterns", **Response of Aeolian Processes to Global Change**, Desert Studies Center, Desert Research Institute, Occasional Paper No.2, Zzyzx, California, p. 49-50 (oral).
91. Greeley R., F.S. Anderson, D.G. Blumberg, E. Lo, and P. Xu, 1993, "*Sand Transport on Mars: Preliminary Results from Models"*, **Lunar and Planetary Science Conference**, XXIV, Houston, Texas, p. 563-564, (oral).
92. Blumberg D.G., and P. Xu, and R. Greeley, 1992, "*Comparison of GCM Wind Field to Aeolian Surface Features; Earth and Mars,”* **The Yale Mintz Memorial Symposium on Climate and Climate Change**, Jerusalem, p. 97-98, December, (oral).
93. Blumberg D.G. and R. Greeley, 1992,"*Detecting Aeolian Processes via Radar: A Field Experiment in Southwest USA*", **27th International Geographic Congress**, Washington D.C., p. 57-58, August 7-14, (oral).
94. Blumberg D. G. and R. Greeley, 1992, "*Influence of Surface Roughness on Aeolian Processes: Earth, Mars, Venus*", **Lunar and Planetary Science Conference**, XXIII, Houston, Texas, p. 125-126, (poster).
95. Tsoar, H and D.G. Blumberg, 1992, "*Cliff Effects on Windward Transport and Accumulation of Sand*", Geomorphology Specialty Group: Desert Geomorphology, **Association of American Geographers Annual Meeting**, San Diego, California, p. 240, April 19, (oral).
96. Brazel, A.J. and D.G. Blumberg, 1992, "*Aeolian Snow Processes In and Around Silverton, Colorado*,” Snow and Ice Climatology, **Association of American Geographers Annual Meeting**, San Diego, California, p. 24, April 20, (oral).
97. Blumberg, D.G., N. Lancaster, and R. Greeley, 1992, "*Estimating the Aerodynamic Roughness from Wind Profiles and Radar Backscatter*" Geomorphology Specialty Group: Desert Geomorphology, **Association of American Geographers Annual Meeting**, San Diego, California, p. 21, April 20, (oral).
98. Blumberg, D.G. and R. Greeley, 1992,"*Changes in the Planetary Boundary Layer Over an Alluvial Fan Cross Section, Related to Surface Roughness*", **Geological Society of America**, San-Diego, p. 205, October 21-24, (poster).
99. Greeley, R., N. Lancaster, L. Gaddis, D.G. Blumberg, A. Dobrovolskis, R.S. Saunders S. Wall, J. Iversen, B. White, and K. Rasmussen, 1991, "*Use of Radar to Assess Aeolian Processes*", **Transactions of the American Geophysics Union**, Supplement. to EOS A.G.U. Spring Meeting, p. 177, Baltimore. (Oral).
100. Tsoar, H. and D.G. Blumberg, 1991, "*The Effect of Sea Cliff on Inland Encroachment of Aeolian Sand*", **The Workshop for The Mediterranean Sea Research**, Israel Oceanographic & Limnological Research, Haifa Israel, p. 1-6. 23 May, (oral).
101. Blumberg, D.G. and R. Greeley, 1991, "*Estimating Aerodynamic Roughness Length from Wind Data and Remote Sensing*,” **International Symposium on Evolution of Deserts**, Ahmedabad, India, p. 22-23, February 11-19, (poster).
102. Blumberg, D.G. and R. Greeley, 1991, "*Influence of Aerodynamic Roughness Lengths on Aeolian Processes; Earth, Mars, and Venus*", **Mars Surface And Atmosphere Through Time**, Boulder, Colorado, September 23, (poster).
103. Blumberg, D.G. and R. Greeley, 1991, "*Measurements of Aerodynamic Roughness Lengths Over Natural Terrain, Implications for Aeolian Processes on Earth, Mars, and Venus*", **Association of the Pacific Coast Geographers**, 1991 Annual Meeting, 14 September, Tucson, Arizona, (oral).
104. Tsoar, H. and D.G. Blumberg, 1990, "*Cliff Effects on Encroachment of Aeolian Sands*", **Israeli Association of Geographers**, (in Hebrew), Jerusalem, Israel, 16-17 December, (oral).
105. Tsoar, H. and D.G. Blumberg, 1990, "*The Effect of Sea Cliffs on Inland Encroachment of Aeolian Sand*,” **NATO Advanced Research Workshop On Dust and Soil in Their Relation to Aeolian and Littoral Processes**, Sandbjerg, Denmark, 14-18 May, (oral).