

- 1) Cohen Yuval, Yitzhak August, Dan G. Blumberg and Stanley R. Rotman, Evaluating sub-pixel target detection algorithms in hyper-spectral imagery, **Journal of Electrical and Computer Engineering**, *in press*.
- 2) Anomaly detection in polarimetric radar images, 2012, Georgy Melamed, Stanley R. Rotman, Dan G. Blumberg, Anthony J. Weiss, **International Journal of Remote Sensing** Vol. 33, Iss. 4, 2012
- 3) Cohen, Y., Blumberg, D.G., and S.R. Rotman., 2012. *Subpixel hyperspectral target detection using local spectral and spatial information*, **J. Appl. Remote Sens.**, Vol. 6, 063508, <http://dx.doi.org/10.1117/1.JRS.6.063508>.
- 4) Shimrit Maman, Dan G. Blumberg, Haim Tsoar, Batyr Mamedov, Naomi Porat, The Central Asian ergs: A study by remote sensing and geographic information systems, **Aeolian Research**, Vol. 3, Issue 3, 353-366, ISSN 1875-9637, 10.1016/j.aeolia.2011.09.001.
- 5) Roskin, J., Porat, N., Tsoar, H. and D.G. Blumberg, 2011, *Age, Origin and climatic controls on vegetated linear dunes in the northwestern Negev Desert (Israel)*, **Quaternary Science**, 30(13-14): 1649-1674.
- 6) Maman, S., Orlovsky, L. and D.G Blumberg, 2011, *A landcover change study of takyrs surfaces in Turkmenistan*, **Journal of Arid Environments**, 75(9): 842-850.
- 7) 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*, **Quaternary Science Reviews**, [doi:10.1016/j.quascirev.2011.08.014](https://doi.org/10.1016/j.quascirev.2011.08.014).
- 8) 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.
- 9) Tsoar, H, and D.G, Blumberg, 2009, *Dynamics of nebkhas superimposed on a parabolic dune and their effect on the dune dynamics*, **Journal of Arid Environments**, 73(11): 1014-1022, [doi:10.1016/j.jaridenv.2009.04.021](https://doi.org/10.1016/j.jaridenv.2009.04.021).
- 10) Tsoar, H, and D.G Blumberg, *Formation and geomorphology of the North-Western Negev sand dunes*. In Breckle, Siegmund-W.; Yair, Aaron; Veste, Maik (Eds.), *Arid Dune Ecosystems: The Nizzana Sands in the Negev Desert*. Berlin: Springer, 2008.
- 11) Tsoar, H, and D.G, Blumberg, 2008, *A second look at western Sinai seif dunes and their lateral migration*, **Geomorphology**, 93(3-4): 335-342, [doi:10.1016/j.geomorph.2007.03.004](https://doi.org/10.1016/j.geomorph.2007.03.004).
- 12) Ben Asher, J., Ephrath, J.E., Shomron, M., Blumberg, D.G, 2008, *Cooling of Leafy Vegetables in Greenhouses* 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.

- 13) Katra, I., Blumberg, D.G, and H. Lavee, 2008, *Soil moisture patterns in semiarid hillslopes: Linkage to surface water redistribution*, **Israel Journal of Earth Sciences**, 57(3-4): 281-289, doi: 10.1560/IJES.57.3-4.281.
- 14) Rubin, D.M., Tsoar, H., Blumberg, D.G, 2007, *A second look at western Sinai seif dunes and their lateral migration*, **Geomorphology**, in press.
- 15) Katra, I., D.G. Blumberg., H. Lavee and P. Sarah, 2007, *Topsoil moisture patterns on arid hillsides – Micro-scale mapping by thermal infrared images*, **J. of Hydrology**, 334 (3-4): 359-367.
- 16) 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*, **International Journal of Remote Sensing**, in press.
- 17) 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.
- 18) Ohel, E., Rotman, S.R. and D.G Blumberg, 2006, *Anomaly gas remote sensing and tracking using a field-portable imaging thermal radiometric spectrometer*, **IEEE**, doi: [10.1109/EEEI.2006.321072](https://doi.org/10.1109/EEEI.2006.321072).
- 19) 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*, **Geomorphology**, 86 (3-4): 455-464.
- 20) Jesus, J., Panagopoulos, T., Blumberg, D., Orlovsky, L. and Ben-Asher, J, 2006, *Monitoring Dust Storms in Central Asia with Open-Source WebGIS Assistance*. **WSEAS Transactions on Environment and Development**, 2(6): 895-898.
- 21) 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*, **Waves in Random and Complex Media**, 16 (3): 179-203.
- 22) Genis, A., D.G. Blumberg and J. Ben-Asher, 2006, *Optimizing Application of Image Analysis Tools to Determine Physical Characteristics of Fine Roots*, **Environment Control in Biology**, 44: 11-20.
- 23) Blumberg, D.G, 2006, *Analysis of large aeolian (wind-blown) bedforms using the Shuttle Radar Topography Mission (SRTM) digital elevation data*, **Remote Sensing of Environment**, 100: 179-189
- 24) 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*, **International Journal of Remote Sensing**, 27 (12): 2599-2611.
- 25) 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*, **Journal of Hydrology**, 318: 374-378.

- 26) Ohel, E., S.R. Rothman and D.G. Blumberg, 2006, *Multi-pixel anomaly detection in noisy multi-spectral images*, **Optical Engineering**, 45(2), 023604.
- 27) 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.
- 28) Tsoar, H. and D.G Blumberg, 2005, *Aeolian sand incursion into the north western Negev during the Upper Quaternary*, **Geophysical Research Abstracts**, 7, 00775.
- 29) 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*, **Geomorphology**, 61(3-4): 239-250.
- 30) Blumberg, D., Freilikher, V, Kaganovskii, Y.S, et al., 2004, *Backscattering of light from a dielectric layer on a reflecting substrate* *Optics Letters*, 29 (12): 1372-1374.
- 31) Goubin, Z. and D.G. Blumberg, 2004. *An urban open space extraction ethod: combining spectral and geometric characteristics*, **Geo-Spatial information science**, 7: 249-254.
- 32) Tsoar, H., D.G. Blumberg, and Y. Stoler, 2004, *Elongation and Migration of Sand Dunes*, **Geomorphology**, 57(3-4): 293-302.
- 33) 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]*. **Photogrammetric Engineering and Remote Sensing**, 70(1): 91-100.
- 34) 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*, **J. Geophys. Res.**, 108 (E4), 8033, doi:10.1029/2002JE001868.
- 35) 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*, **Remote Sensing of Environment**, 86: 243-256.
- 36) 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, **International Journal of Remote Sensing**, 24: 1393-1399.
- 37) 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 (1.2-2.5 μ m)*, **Soil Sciences Society of America**, 67: 289-299.

- 38) Blumberg, D.G., 2002, *Geographic Information Technologies in Israel and Availability of Spatial Data in Israel*, **Geographic Research Forum**, 22: 92-90.
- 39) Tsoar, H., and D.G. Blumberg, 2002, *Formation of Parabolic Dunes from Barchan and Transverse dunes along Israel's Mediterranean Coast*, **Earth Surface Processes and Landforms**, 27 (11): 1147-1161.
- 40) 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*, **Meteoritics and Planetary Sciences**, 37 (3): 407-420.
- 41) 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*, **Waves in Random Media**, 12 (3): 279-292.
- 42) 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*, **International Journal of Remote Sensing**, 23 (19): 4039-4054.
- 43) 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*, **International Journal of Remote Sensing**, 23 (19): 3909-3920.
- 44) Zhu, G., and D.G. Blumberg, 2002, *Classification Using ASTER Data and SVM Algorithms; the Case Study of Beer Sheva, Israel*, **Remote Sensing of Environment**, 80(2): 233-240.
- 45) 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.
- 46) 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*, **J. of Environmental Management**, Vol.63:103-111.
- 47) Blumberg, D.G., and V. Freilikher., 2001. *Soil Water-Content and Surface Roughness Retrieval Using ERS-2 SAR Data*, **Journal of Arid Environments**, Vol.49 (3): 449-464.
- 48) 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 (1.2-2.5mm)*, **Terra Nova**, Vol. 13(1): 12-17.
- 49) Serbin, G., Or, D., and D.G., Blumberg., 2001. *Thermodielectric Effects on Radar backscattering from Wet Soils*. **IEEE Transactions on Geoscience and Remote Sensing**, Vol.39 (4): 897-901.

- 50) Rotman, S.R., Succary, R., 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.
- 51) 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.
- 52) Blumberg, D.G., Freilikher, V., Lyalko, I.V., Vulfson, L.D., Kotlyar, A.L., Shevchenko, V.N., and A.D. Ryabokononko., 2000. *Soil moisture (water-content) assessment by an airborne scatterometer; The Chernobyl disaster area and the Negev Desert*, **Remote Sensing of Environment**, Vol.71: 309-319.
- 53) 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.
- 54) 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*, **Journal of Geophysical Research**, Vol.104 (E8): 18,891-19,002.
- 55) Blumberg, D.G., 1998. *Remote Sensing of Desert Dune Forms by Polarimetric Synthetic Aperture Radar (SAR)*, **Remote Sensing of Environment**, Vol.65 (2): 204-216.
- 56) Blumberg, D.G. and Ronald Greeley., 1997. Corrigendum to: *A Comparison of General Circulation Model Predictions to Sand Drift and Dune Orientations*, **Journal of Climate**, Vol.10: 1134.
- 57) Blumberg, D.G. and D, Jacobson., 1997. *New Frontiers: Remote Sensing in Social Science Research*, **The American Sociologist**, Vol. 28(3): 61-68.
- 58) 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*, **Journal of Geophysical Research**, Vol.102 (E5):10,971-10,983.
- 59) Blumberg, D.G. and R. Greeley., 1996. *A Comparison of General Circulation Model Predictions to Sand Drift and Dune Orientations*, **Journal of Climate**, Vol.9: 3248-3259.
- 60) Greeley, R., Blumberg, D.G., and S.H. Williams., 1996. *Field Measurements of the Flux and Speed of Wind-blown Sand*, **Sedimentology**, Vol. 43: 41-52.
- 61) Greeley, R., and D.G. Blumberg., 1995. *Preliminary Analysis of Shuttle Radar Laboratory (SRL-1) Data to study Aeolian Features and Processes*, **IEEE Transactions on Geoscience and Remote Sensing**, Vol. 33 (4): 927-933.

- 62) Mchone, J.F., Blumberg, D.G., Greeley, R., and Underwood, JR., 1995. *Space Shuttle Radar Images of Terrestrial Impact Structures- SIR-C/X-SAR*, **Meteoritics**, Vol.30 (5): 543-543.
- 63) Edgett, K.S. and D.G. Blumberg., 1994. *Star and Linear Dunes on Mars*, **ICARUS**, Vol.112 (2): 448-464.
- 64) Blumberg, D.G. and R. Greeley., 1993. *Field Studies of Aerodynamic Roughness Length*, **Journal of Arid Environments**, Vol. 25: 39-48.
- 65) 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.
- 66) Tsoar, H. and D.G. Blumberg., 1991. *The Effect of the Beach Cliff on Encroachment of Aeolian Sands*, **Acta Mechanica**, Suppl. 2: 131-146.
- 67) 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, Vol. 31: 155