

Abbott M.B., Refsgaards J.C. (ed.), 1996, Distributed Hydrological Modelling. Kluwer Academic Publishers, The Netherlands.

Anctil F., Mathieu R., Parent L.-É., Viau A.A., Sbih M., Hessami M., 2002, Geostatistics of near-surface moisture in bare cultivated organic soils. *Journal of Hydrology*, 260, 1-4, 30-37.
[https://doi.org/10.1016/S0022-1694\(01\)00600-X](https://doi.org/10.1016/S0022-1694(01)00600-X)

Andreassian V., Parent E., Michel C., 2002, Using a Parsimonious Rainfall-Runoff Model to Detect Non-stationarities in the Hydrological Behaviour of Watershed. [W:] *Integrated Assessment and Decision Support, Proceedings of the 1st Biennial Meeting of the International Environmental Modelling and Software Society, iEMSs*, A.E. Rizzoli, A.J. Jakeman (ed.), 458--463. Manno, Switzerland.

Andrzejewska A., 2003, Physiography and nature monitoring in the Kampinoski National Park and its buffer zone. *International Journal of Ecohydrology & Hydrobiology*, 3, 3, 247-253.

Apanowicz J., 2005, Metodologiczne uwarunkowania pracy naukowej. Prace doktorskie. Prace habilitacyjne. Difin, Warszawa.

Bajkiewicz-Grabowska E., Mikulski Z., 1984, Hydrogram wezbrania, jego genetyczny podział i podstawowe pojęcia. *Przegląd Geofizyczny*, 29, 3, 333-343.

Bajkiewicz-Grabowska E., Mikulski Z., 1999, *Hydrologia ogólna*. Wyd. Naukowe PWN, Warszawa.

Band L., Moss M., Ogden F., 2003, The CUAHSI Plan for a Network of Hydrologic Observatories. [W:] *First Interagency Conference on Research in the Watersheds*, October 27-30, K.G. Renard, S. McElroy, A. Stephen, B. Gburek, J. William, H.E. Canfield, R.L. Scott (ed.). U.S. Department of Agriculture, Agricultural Research Service.

Baranowski P., Usowicz B., Walczak R.T., Mazurek W., 2005, Evapotranspiration into the boundary layer of the atmosphere. *Instytut Agrofizyki PAN, Lublin*. Bárdossy A., Lehmann W., 1998, Spatial distribution of soil moisture in a small catchment. Part 1: geostatistical analysis. *Journal of Hydrology*, 206, 1-2, 1-15.

Baumgartner A., Liebscher H.-J., 1996, *Allgemeine Hydrologie. Quantitative Hydrologie*. Gebrüder Bornträger, Berlin-Stuttgart.

Baveye P., Boast C.W., 1999, Physical scales and spatial predictability of transport processes in the environment, 261-280, [W:] *Assessment of non-point source pollution in the vadose zone*, D.L. Corwin, K. Loague and T.R. Ellsworth (ed.). *Geophysical Monograph*, 108, American Geophysical Union, Washington, D.C. <https://doi.org/10.1029/GM108p0261>

Bednarek R., Dziadowiec H., Pokojaska U., Prusinkiewicz Z., 2004, *Badania ekologiczno-gleboznawcze*. Wyd. Naukowe PWN, Warszawa.

Beldring S., Gottschalk L., Seibert J., Tallaksen L. M, 1999, Distribution of soil moisture and groundwater levels at patch and catchment scales. *Journal of Agricultural and Forest Meteorology*, 98-99, 305-324. [https://doi.org/10.1016/S0168-1923\(99\)00103-3](https://doi.org/10.1016/S0168-1923(99)00103-3)

Beven K., 2003, *Rainfall-Runoff Modeling - The Primer*. Wiley, Chichester, UK.

Beven K., Kirkby M J., 1979, A physically based variable contributing area model of basin hydrology. *Hydrological Sciences Bulletin*, 24, 1, 43-69. <https://doi.org/10.1080/02626667909491834>

Biernacki Z., Mróz W., 1993, Geomorfologia i hydrografia. [W:] Atlas Województwa Warszawskiego. Urząd Wojewódzki w Warszawie, Wydział Geodezji i Gospodarki Gruntami, Warszawa.

Blöeschl G., 1996, Scale and scaling in hydrology. Wiener Mitteilungen, Wasser Abwasser Gewässer Hydraulik, Band 132, Insitut für Gewässerkunde und Wasserwirtschaft, Technische Universität Wien.

Blöeschl G., 2001, Scaling in hydrology. Hydrological Processes, 15, 4, 709-711.

<https://doi.org/10.1002/hyp.432>

Blöeschl G., Sivapalan M., 1995, Scale issues in hydrological modelling: a review. Hydrological Processes, 9, 3-4, 251-290. <https://doi.org/10.1002/hyp.3360090305>

Brandt S., 1999, Analiza danych. Wyd. Nauk. PWN, Warszawa.

Brandyk T., Szatyłowicz J., Oleszczuk R., Gnatowski T., 2003, Water-Related Physical Attributes of Organic Soils. [W:] Organic Soils and Peat Materials for Sustainable Agriculture, L.-E Parent, P. Ilnicki (ed.), 33-66. CRC Press LLC, Boca Raton. <https://doi.org/10.1201/9781420040098-3>

Bristow K.L., 2003, Introduction - The Soil-Plant-Atmosphere Continuum: Gaps and Unresolved Issues. Agronomy Journal, 95, 6, 1349-1351. <https://doi.org/10.2134/agronj2003.1349>

Brocca L., Galli M., Stelluti M., 2005, Preliminary analysis of distributed in situ soil moisture measurements. Advances in Geosciences, 2, 81-86. <https://doi.org/10.5194/adgeo-2-81-2005>

Brown, J.D., Heuvelink G.B.M., 2005, Assessing Uncertainty Propagation Through Physically based Models of Soil Water Flow and Solute Transport. [W:] Encyclopedia of Hydrological Sciences, M.G. Anderson (ed.), Vol. 2, 1181-1195. Wiley & Sons, Chichester.

<https://doi.org/10.1002/0470848944.hsa081>

Budyko M.I., 1975, Klimat i życie. PWN, Warszawa.

Byczkowski A., 1996, Hydrologia. T. II, Wyd. SGGW, Warszawa.

Cantón Y., Solé-Benet A., Domingo F., 2004, Temporal and spatial patterns of soil moisture in semiarid badlands of SE Spain. Journal of Hydrology, 285, 1-4, 199-214.

<https://doi.org/10.1016/j.jhydrol.2003.08.018>

Chapman T., 1999, A comparison of algorithms for stream flow recession and baseflow separation. Hydrological Processes, 13, 5, 701-714. [https://doi.org/10.1002/\(SICI\)1099-1085\(19990415\)13:5<701::AID-HYP774>3.0.CO;2-2](https://doi.org/10.1002/(SICI)1099-1085(19990415)13:5<701::AID-HYP774>3.0.CO;2-2)

Chapman, T.G., Maxwell, A. I., 1996, Baseflow separation and comparison of numerical methods with tracer experiments. Hydrol. and Water Resour. Symp. Institution of Engineers Australia, Hobart. 539-545.

Chen X., Hu Q., 2004, Groundwater influences on soil moisture and surface evapotranspiration. Journal of Hydrology, 297, 1-4, 285-200. <https://doi.org/10.1016/j.jhydrol.2004.04.019>

Chełmicki W., 1989, Wybrane metody oceny wahań zwierciadła wód podziemnych. Przegląd Geograficzny, 61, 1-2, 63-76.

Chełmicki W., 1991a, Reżim płytkich wód podziemnych w Polsce. Rozprawy Habilitacyjne, 218. Uniwersytet Jagielloński, Kraków.

Chełmicki W., 1991b, Zmiany położenia zwierciadła wód gruntowych na tle zmian opadów atmosferycznych w latach 1961-1980. Zeszyty Nauk. UJ, Prace Geograficzne, 88, 77-85.

Chełmicki W., 1993, The Annual Regime of Shallow Groundwater Levels in Poland. *Ground Water*, 31, 3, 383-388. <https://doi.org/10.1111/j.1745-6584.1993.tb01839.x>

Chełmicki W., 2003, Recesja przepływu i zasoby wodne zlewni. [W:] *Zlewnia. Właściwości i procesy*, J. Pociask-Karteczka (red.), 215-219. Instytut Geografii i Gospodarki Przestrzennej UJ, Kraków.

Chojnicki Z., Starkel L., Wróbel A., 1986, Główne kierunki rozwoju polskiej geografii. *Przegląd Geograficzny*, 65, 3-4, 431-438.

Christakos G., 2000, *Modern Spatiotemporal Geostatistics*. Int. Assoc. for Mathematical Geology Studies in Mathematical Geology, 6. Oxford University Press, Inc., New York.

Clifford N.J., 2002, Hydrology: the changing paradigm. *Progress in Physical Geography*, 26, 2, 290-301. <https://doi.org/10.1191/0309133302pp337pr>

CUAHSI, 2004, *Designing Hydrologic Observatories: A Paper Prototype of the Neuse Watershed*. Consortium of Universities for the Advancement of Hydrologic Science Inc., Technical Report 6, Washington D.C.

CUAHSI, 2005, *Designing hydrologic observatories as a community service*. Consortium of Universities for the Advancement of Hydrologic Science Inc., Technical Report 7, Washington D.C.

Daly E., Porporato A., 2005, A Review of Soil Moisture Dynamics: From Rainfall Infiltration to Ecosystem Response. *Environmental Engineering Science*, 22, 1, 9-24. <https://doi.org/10.1089/ees.2005.22.9>

Dąbrowska-Zielińska K., Gruszczyńska M., Kowalik W., Stankiewicz K., 2002, Application of Multisensor Data for Evaluation of Soil Moisture. *Advances in Space Research*, 29, 1, 45-50. [https://doi.org/10.1016/S0273-1177\(01\)00626-3](https://doi.org/10.1016/S0273-1177(01)00626-3)

De Boers, D.K., 2001, Linking GCMs and surface hydrology: the challenge of spatial scale. *The Canadian Geographer*, 45, 1, 79-84. <https://doi.org/10.1111/j.1541-0064.2001.tb01170.x>

Dekker L.W., Ritsema C.J., Wendroth O., Jarvis N., Oostindie K., Pohl W., Larsson M., Gaudet J.-P., 1999, Moisture distributions and wetting rates of soils at experimental fields in the Netherlands, France, Sweden and Germany. *Journal of Hydrology*, 215, 1-4, 4-22. [https://doi.org/10.1016/S0022-1694\(98\)00258-3](https://doi.org/10.1016/S0022-1694(98)00258-3)

Dewandel B., Lachassagne P., Bakalowicz M., Weng Ph., Al-Malki A., 2003, Evaluation of aquifer thickness by analysing recession hydrographs. Application to the Oman ophiolite hard-rock aquifer. *Journal of Hydrology*, 274, 1-4, 248-269. [https://doi.org/10.1016/S0022-1694\(02\)00418-3](https://doi.org/10.1016/S0022-1694(02)00418-3)

Dickinson R.E., Wang G., Zeng X., Zeng Q., 2003, How does the partitioning of evapotranspiration and runoff between different processes affect the variability and predictability of soil moisture and precipitation? *Advances in Atmospheric Sciences*, 20, 3, 475-478. <https://doi.org/10.1007/BF02690805>

Dingman S.L., 2002, *Physical Hydrology*. Prentice Hall, New Jersey.

Dirmeyer P.A., Dolman A. J., Sato N., 1999, The Global Soil Wetness Project: A pilot project for global land surface modeling and validation. *Bulletin of the American Meteorological Society*, 80, 5, 851-878. [https://doi.org/10.1175/1520-0477\(1999\)080<0851:TPPOTG>2.0.CO;2](https://doi.org/10.1175/1520-0477(1999)080<0851:TPPOTG>2.0.CO;2)

Dobrzański B., Zawadzki S. (red.), 1995, *Gleboznawstwo*. Wyd. III poprawione, PWRiL, Warszawa.
D'Odorico P., Porporato A., 2004, Preferential states in soil moisture and climate dynamics.

Proceedings of National Academy of Sciences (PNAS), 101, 24, 8848-8851.

<https://doi.org/10.1073/pnas.0401428101>

D'Odorico P., Ridolfi L., Porporato A., Rodriguez-Iturbe I., 2000, Preferential States of Seasonal Soil Moisture. The Impact of Climate Fluctuations. *Water Resources Research*, 36, 8, 2209-2220.

<https://doi.org/10.1029/2000WR900103>

Drusch M., Seuffert G., Thiele A., Wilker H., 2004, Towards an Operational Soil Moisture Analysis Based on Screen Level Observations and Remotely Sensed Data. *Baltex Newsletter*, 6, 6-9. World Climate Research Programme (WCRP)/Global Energy and Water Cycle Experiment.

Eagleson P.S., 1978, *Hydrologia dynamiczna*. PWN, Warszawa.

Eagleson P.S., 2002, Water Balance. [W:] *Ecohydrology: Darwinian Expression of Vegetation Form and Function*, P.S. Eagleson, 170-207. Cambridge University Press, Cambridge, UK.

<https://doi.org/10.1017/CBO9780511535680.008>

Earnst L.F., 1969, Determination of storage coefficients from observation of groundwater levels. [W:] *Water in the unsaturated zone*, Symp. 1966., Proc. UNESCO/IASH. Miscellaneous Reprints 87, Wageningen.

Easy Test (Field Operating Meter for the Moisture, Temperature and Salinity of Soils, Reference Manual), 2001, Lublin, Poland, Easy Test Ltd.

Entin J.K., Robock A., Vinnikov K.Y., Hollinger S.E., Liu S., Mankhai A., 2000, Temporal and spatial scales of observed soil moisture variations in the extratropics. *Journal of Geophysical Research - Atmospheres*, 105, D9, 11865-11877. <https://doi.org/10.1029/2000JD900051>

Entekhabi D., Rodriguez-Iturbe I., Castelli F., 1996, Mutual interaction of soil moisture state and atmospheric processes. *Journal of Hydrology*, 184, 1-2, 3-17. [https://doi.org/10.1016/0022-1694\(95\)02965-6](https://doi.org/10.1016/0022-1694(95)02965-6)

Entekhabi E., Asrar G. R., Betts A.K., Beven K.J., Bras R.L., Duffy C.J., Dunne T., Koster R.D., Lettenmaier D.P., McLaughlin D.B., Shuttleworth W. J., van Genuchten M.T., Wei M., Wood E.F., 1999, An Agenda for Land-Surface Hydrology Research and a Call for the Second International Hydrological Decade. *Bulletin of the American Meteorological Society*, 80, 10, 2043-2058. [https://doi.org/10.1175/1520-0477\(1999\)080<2043:AAFLSH>2.0.CO;2](https://doi.org/10.1175/1520-0477(1999)080<2043:AAFLSH>2.0.CO;2)

Famiglietti J. S., Rudnicki J. W., Rodell M., 1998, Variability in surface moisture content along a hillslope transect: Rattlesnake Hill, Texas. *Journal of Hydrology*, 210, 1-4, 259-281. [https://doi.org/10.1016/S0022-1694\(98\)00187-5](https://doi.org/10.1016/S0022-1694(98)00187-5)

Feddes R.A., Hoff H., Bruen M., Dawson T., de Rosnay P., Dirmeyer P., Jackson R.B., Kabat P., Kleidon A., Lilly A., Pitman A.J., 2001, Modeling root water uptake in hydrological and climate models. *Bulletin of the American Meteorological Society*, 82, 12, 2797--2809. [https://doi.org/10.1175/1520-0477\(2001\)082<2797:MRWUIH>2.3.CO;2](https://doi.org/10.1175/1520-0477(2001)082<2797:MRWUIH>2.3.CO;2)

Feddes R.A., Raats P.A.C., 2004, Parametrizing the soil-water-plant root system. [W:] *Unsaturated-Zone Modeling: Progress, Challenges and Applications*, Feddes R.A., de Rooij G.H., van Dam J.C. (ed.), 95-141. Papers for the FRONTIS Workshop on Unsaturated-Zone Modeling: Progress, Challenges and Application, Wageningen, The Netherlands, 3-5 October 2004.

Findeisen W. (red.), 1985, *Analiza systemowa - Podstawy metodologiczne*. PWN, Warszawa.

Fitzjohn C., Ternan J. L., Williams A. G., 1998, Soil moisture variability in a semi-arid gully catchment: implications for runoff and erosion control. *Catena*, 32, 1, 55-70. [https://doi.org/10.1016/S0341-8162\(97\)00045-3](https://doi.org/10.1016/S0341-8162(97)00045-3)

Freeze R.A., Cherry J.A., 1978, *Groundwater*. Prentice-Hall, Inc., Englewood Cliffs, New Jersey.

Georgakakos K.P., Baumer O.W., 1996, Measurement and utilization of on-site soil moisture data. *Journal of Hydrology*, 184, 1-2, 131-152. [https://doi.org/10.1016/0022-1694\(95\)02971-0](https://doi.org/10.1016/0022-1694(95)02971-0)

Gleick P. H., 1996, Water resources. [W:] *Encyclopedia of Climate and Weather*, S.H. Schneider (ed.), Vol. 2, 817-823. Oxford University Press, New York.

Gnatowski T., Brandyk T., Szatylowicz J., 1996, Ocena zmienności przestrzennej właściwości fizycznych

i wodnych gleby w skali nawadnianej kwatery. *Przegląd Naukowy Wydz. Melioracji i Inżynierii Środowiska*, 11, 129-136.

Gómez-Plaza A., Alvarez-Rogel J., Albaladejo J., Castillo V. M., 2000, Spatial patterns and temporal stability of soil moisture across a range of scales in a semi-arid environment. *Hydrological Processes*, 14, 7, 1261-1277. [https://doi.org/10.1002/\(SICI\)1099-1085\(200005\)14:7<1261::AID-HYP40>3.3.CO;2-4](https://doi.org/10.1002/(SICI)1099-1085(200005)14:7<1261::AID-HYP40>3.3.CO;2-4)

Goot van der E., 1997, Technical description of interpolation and processing of meteorological data in CGMS. Joint Research Centre of the European Commission, Ispra, Italy.

Goot van der E., 1998, Spatial interpolation of daily meteorological data for the Crop Growth Monitoring System (CGMS). [W:] *Proceedings of seminar on data spatial distribution in meteorology and climatology*, 28 September - 3 October 1997, Volterra, Italy, M. Bindi, B. Gozzini (ed.), 141-153. EUR 18472 EN, Office for Official Publications of the EU, Luxembourg.

Grayson R., Blöeschl G. (ed.), 2001, *Spatial patterns in catchment hydrology. Observations and Modelling*. Cambridge University Press, Cambridge, UK.

Grayson R. B., Western A. W., Chiew F. H. S., 1997, Preferred states in spatial soil moisture patterns: Local and nonlocal controls. *Water Resources Research*, 33, 12, 2897-2908. <https://doi.org/10.1029/97WR02174>

Gruszczyńska M., Dąbrowska-Zielińska K., 2004, Szacowanie wilgotności gleb ze zdjęć mikrofalowych, *Teledetekcja środowiska*, 33, 68-74.

Gupta V., Duffy C., Grossman R., Krajewski W., Lall U., McCaffrey M., Milne B., Pielke Sr. R., Reckhow K., Swanson F., 2000, A framework for reassessment of basic research and educational priorities in hydrologic sciences. Report of a Hydrology Workshop, Albuquerque, NM, January 31-February 1, 1999, to the NSF-GEO Directorate. <http://cires.colorado.edu/hydrology/40.html>.

Gutry-Korycka M., 1972, Z zagadnień dynamiki odpływu powierzchniowego i podziemnego. *Przegląd Geofizyczny*, 17(25), 2, 133-145.

Gutry-Korycka M., 1978, Zasilanie podziemne rzek polskich. *Przegląd Geofizyczny*, 23(31), 2, 79-98.

Gutry-Korycka M., 1982, Uwilgotnienie obszarowe jako element bilansu wodnego w ujściu Lwowicza. *Przegląd Geofizyczny*, 27, 1-2, 53-58.

- Gutry-Korycka M., 1984, Analiza i modele struktury hydrologicznej Polski. Rozprawy Uniwersytetu Warszawskiego, Wyd. UW, Warszawa.
- Gutry-Korycka M., 1998, Długookresowe tendencje obiegu wody w zlewni nizinnej Utraty. *Acta Geographica Lodziensia*, 74, 49-60.
- Gutry-Korycka M., 1999, Zlewnia jako system dynamiczny. [W:] *Interdyscyplinarność w badaniach dorzecza*, W. Chełmicki, J. Pociask-Karteczka (red.), 33-54. IGUJ, Kraków.
- Gutry-Korycka M., 2001, Rola skali w geoekosystemach. [W:] *Funkcjonowanie geoekosystemów w zróżnicowanych warunkach morfoklimatycznych - monitoring, ochrona, edukacja*, A. Karczewski, Z. Zwoliński (red.), 157-176. Stow. Geomorfologów Polskich, Poznań.
- Gutry-Korycka M., 2002, Długookresowe tendencje obiegu wody w Kampinoskim Parku Narodowym. *Przegląd Geofizyczny*, 47, 3-4, 211-223.
- Gutry-Korycka M., 2003, Podstawy teoretyczne kształtowania różnych form retencji. [W:] *Rola retencji zlewni w kształtowaniu wezbrań opadowych*, M. Gutry-Korycka, B. Nowicka (red.). WGRS UW, Warszawa.
- Gutry-Korycka M., Soczyńska U., 2000, Prognozowanie ustroju hydrologicznego w różnych skalach geograficznych. *Przegląd Geofizyczny*, 45, 3-4, 239-250.
- Hanks R.J., Ashcroft G.L., 1980, *Applied Soil Physics. Soil Water and Temperature Application*. Springer-Verlag, Berlin, Heidelberg, New York. https://doi.org/10.1007/978-1-4684-0184-4_5
- Harter T., Hopmans J.W., 2004, Role of vadose-zone flow processes in regional-scale hydrology: review, opportunities and challenges. [W:] *Unsaturated-Zone Modeling: Progress, Challenges and Applications*, R.A. Feddes, G.H. de Rooij, J.C. van Dam (ed.), 179-208. Papers for the FRONTIS Workshop on Unsaturated-Zone Modeling: Progress, Challenges and Application, Wageningen, The Netherlands 3-5 October 2004.
- Herbst M., Diekkrüger B., 2003, Modelling the spatial variability of soil moisture in a micro-scale catchment and comparison with field data using geostatistics. *Physics and Chemistry of the Earth, Parts A/B/C*, 28, 6-7, 239-245. [https://doi.org/10.1016/S1474-7065\(03\)00033-0](https://doi.org/10.1016/S1474-7065(03)00033-0)
- Heuvelink G.B.M., Pebesma E.J., 1999, Spatial aggregation and soil process modelling. *Geoderma*, 89, 1-2, 47-65. [https://doi.org/10.1016/S0016-7061\(98\)00077-9](https://doi.org/10.1016/S0016-7061(98)00077-9)
- Hillel D., 2004, *Introduction to Environmental Soil Physics*. Academic Press Elsevier Science, USA.
- Hirschi M., Seneviratne S. I., Viterbo P., Lüthi D., Schär C., 2003, Water balance computations of seasonal changes in terrestrial water storage for major Eurasian river basins. AMS Annual Meeting, February 2003, Long Beach, California, USA.
- Hirschi M., Seneviratne S. I., Viterbo P., Schär C., 2004, Water balance estimates of seasonal changes in terrestrial water storage for major river basins of the northern mid-latitudes. [W:] *Proceedings of the 2nd International CAHMDA Workshop on: The Terrestrial Water Cycle: Modelling and Data Assimilation Across Catchment Scales*, A. J. Teuling, H. Leijnse, P. A. Troch, J. Sheffield and E. F. Wood (ed.), 13-15. Princeton, NJ, USA, October 25-27, 2004.
- Holko L., 2006 (w druku), FRIEND NE Project 5: Activities 2002-2005. IAHS.

Hopmans J.W., Hendrickx J.M., Selker J.S., 1999, Emerging Measurement Techniques for Vadose Zone Characterization. [W:] Vadose Zone Hydrology. Cutting Across Disciplines, M.B. Parlange, J.W. Hopmans (ed.), 279-316. Oxford University Press, New York.

<https://doi.org/10.1093/oso/9780195109900.003.0015>

Hornberger G.M., Raffensperger J.P., Wiberg P.L., Eshleman K.N., 1998, Elements of physical hydrology. The Johns Hopkins University Press, Baltimore and London.

Horton R. E., 1933, The role of infiltration in the hydrologic cycle. Trans. Am. Geophysical Union, 14, 446-460. <https://doi.org/10.1029/TR014i001p00446>

Houser P., Goodrich D., Syed K., 2001, Runoff, Precipitation and Soil Moisture at Walnut Gulch. [W:] Spatial patterns in catchment hydrology. Observations and Modelling, R. Grayson, G. Blöeschl (ed.), 125-157. Cambridge University Press, Cambridge, UK.

Huisman J.A., Sperl C., Bouten C., Verstraten J.M., 2001, Soil water content measurements at different scales: accuracy of time domain reflectometry and ground-penetrating radar. Journal of Hydrology, 245, 1-4, 48-58. [https://doi.org/10.1016/S0022-1694\(01\)00336-5](https://doi.org/10.1016/S0022-1694(01)00336-5)

Inkpen R., 2005, Science, Philosophy and Physical Geography. Routledge, New York.

<https://doi.org/10.4324/9780203498484>

Isaaks E.H., Srivastava R.M., 1989, Applied geostatistics. Oxford University Press, Inc., New York.

Janicki G., Pietrzak M., 1999, Podejścia badawcze we współczesnej polskiej geografii fizycznej. [W:] Geografia w Uniwersytecie Jagiellońskim, T. IV: Geografia polska u progu trzeciego tysiąclecia, B. Domański, W. Widacki (red.), 47-63. IGUJ, Kraków.

Jaworski J., 1991, Modelowanie zmian zapasów wody w strefie aeracji. Wiadomości IMGW, 14(35), 1-4, 23-31.

Jaworski J., 2004, Parowanie w cyklu hydrologicznym zlewni rzecznych. Polskie Towarzystwo Geofizyczne, Warszawa.

Jaworski J., Młynarczyk B., 1976, Przestrzenna zmienność uwilgotnienia górnej strefy aeracji w zlewni Wilgi. Wiadomości IMGW, 3(24), 2, 33-49.

Jaworski J., Szkutnicki J. (red.), 1999, Metody badań eksperymentalnych. [W:] Dynamika obiegu wody w zlewni Górnej Wilgi, J. Jaworski, J. Szkutnicki (red.), 58-119. IMGW, Warszawa.

Jaworski J., Szkutnicki J., 2001, Procesy hydrologiczne w zlewni górnej Wilgi. [W:] Dynamika obiegu wody w zlewniach rzecznych, J. Jaworski, J. Szkutnicki (red.), 21-40. Seria: Atlasy i monografie, IMGW, Warszawa.

Jokiel P., 1987, Proces wysychania zlewni i jego fizjograficzne uwarunkowania. Acta Geographica Lodziensia, 56. Wyd. PAN, Ossolineum, Wrocław.

Jokiel P., 1994a, Zasoby, odnawialność i odpływ wód podziemnych strefy aktywnej wymiany w Polsce. Acta Geographica Lodziensia, 66/67. Łódzkie Tow. Nauk., Łódź.

Jokiel P., 1994b, Zastosowanie wzorcowej krzywej wysychania do oceny zasobów wód podziemnych zlewni i ich odnawialności. Wiadomości IMGW, 17, 1, 31-54.

Jokiel P., 1999, Objętość i stan nawodnienia stref aktywnej wymiany małych zlewni rzecznych. Czasopismo Geograficzne, 70, 3-4, 337-350.

- Jury W.A., Horton R., 2004, Soil Physics. John Wiley & Sons, Inc., Hoboken, New Jersey.
- Kaczmarek Z., 1993, Water Balance Model for Climate Impact Analysis. *Acta Geophysica Polonica*, 41, 4, 423-437.
- Kaczmarek Z., Krasuski D., 1991, Sensitivity of Water Balance to Climate Change and Variability. IIASA Working Paper, WP-91-047, Laxenburg.
- Killberg P., Simmons A., Uppala S., Fuentes M., 2004, The ERA-40 archive. ERA-40 Project Report Series, 17, England.
- Kalma J.D., Boulet G., 1998, Measurement and prediction of soil moisture in a medium-sized catchment. [W:] Special Issue: Monitoring and Modelling of Soil Moisture: Integration over Time and Space, Z.W. Kundzewicz (ed.), R.A. Feddes, J.D. Kalma (guest ed.). *Hydrological Sciences Journal*, 43(4), 597-610. IAHS Press, Institute of Hydrology, Wallingford, UK.
<https://doi.org/10.1080/02626669809492156>
- Kalnay E., Kanamitsu M., Kistler R., Collins W., Deaven D., Gandin L., Iredell M., Saha S., White G., Woollen J., Zhu Y., Chelliah M., Ebisuzaki W., Higgins W., Janowiak J., Mo K.C., Ropelewski C., Wang J., Leetma A., Reynolds R., Jenne R., Joseph D., 1996, The NCEP/NCAR 40-Year Reanalysis Project. *Bulletin of the American Meteorological Society*, 77, 3, 437-471. [https://doi.org/10.1175/1520-0477\(1996\)077<0437:TNYRP>2.0.CO;2](https://doi.org/10.1175/1520-0477(1996)077<0437:TNYRP>2.0.CO;2)
- Kaniecki A., 1982, Pojemność retencyjna i zmienność zasobów wodnych małej zlewni nizinnej na przykładzie dorzecza Wrześnicy. Wyd. Naukowe UAM, Seria Geografia, 26, Poznań.
- Kasprzyk A., 1998, Fizycznogeograficzne uwarunkowania susz hydrologicznych w Polsce. Maszynopis rozprawy doktorskiej. WSP Kielce, WGSU UW, Warszawa.
- Kazimierski B., Sikorska-Maykowska M., Pilichowska-Kazimierska E., 2003, Wody. [W:] R. Andrzejewski (red.), *Kampinoski Park Narodowy, T.I: Przyroda Kampinoskiego Parku Narodowego*, 35-212. Kampinoski Park Narodowy, Izabelin.
- Kemeny J.G., 1967, Nauka w oczach filozofa. PWN, Warszawa.
- Kędziora A., 1995, Podstawy agrometeorologii. PWRiL, Poznań.
- Kleidon A., 2004, Global Datasets of Rooting Zone Depth Inferred from Inverse Methods. *Journal of Climate*, 17, 13, 2714-2722. [https://doi.org/10.1175/1520-0442\(2004\)017<2714:GDORZD>2.0.CO;2](https://doi.org/10.1175/1520-0442(2004)017<2714:GDORZD>2.0.CO;2)
- Klemes V., 1983, Conceptualization and scale in hydrology. *Journal of Hydrology*, 65, 1-3, 1-23.
[https://doi.org/10.1016/0022-1694\(83\)90208-1](https://doi.org/10.1016/0022-1694(83)90208-1)
- Klimek A., 2003, Obszar niewiedzy. *Sprawy Nauki*, 6/7 (91/92).
- Kliner K., Knežek M., 1974, Metoda separace podzemního odtoku při využití pozorování podzemní vody. *Vodohospodářský Časopis*, 22, 5, 457-466.
- Kondracki J., 2002, Geografia regionalna Polski. Wyd. Nauk. PWN, Warszawa.
- Konecka-Betley K., 2003, Gleby. [W:] *Kampinoski Park Narodowy, T.I: Przyroda Kampinoskiego Parku Narodowego*, R. Andrzejewski (red.), 97-133. Kampinoski Park Narodowy, Izabelin.
- Koniar-Schaefer J., 1972, Teoretyczne podstawy metody obliczania niżówkowych przepływów małych niekontrolowanych cieków karpaccich za pomocą regresji przepływu. Seria: Budownictwo wodne i inżynieria sanitarna, 7. Politechnika Krakowska, Kraków.

Kostka Z., Holko L., 1997, Soil moisture and runoff generation in small mountain basin. Institute of Hydrology SAS, Slovak Committee for Hydrology, Bratislava.

Kostrzewski A., 1993, Geoekosystem obszarów nizinnych. Koncepcja metodologiczna. [W:] Geoekosystem obszarów nizinnych, A. Kostrzewski (red.). Kom. Nauk. Prez. PAN "Człowiek i Środowisko", 6, 11-17. Ossolineum, Wrocław.

Kowalik P., 1973, Zarys fizyki gruntów. Politechnika Gdańska, Gdańsk.

Kowalik P., 1995, Obieg wody w ekosystemach lądowych. Monografie Komitetu Gospodarki Wodnej PAN, 9. Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa.

Kowalik P., 2001, Ochrona środowiska glebowego. Wydawnictwo Naukowe PWN, Warszawa.

Koëmiński C., Michalska B. (red.), 1995, Atlas uwilgotnienia gleby w Polsce. AR w Szczecinie, Szczecin.

Krogulec E., 2003, Dynamics of groundwater table changes in the area of the Kampinoski National Park and its protection zone. International Journal of Ecohydrology & Hydrobiology, 3, 3, 273-278.

Krogulec E., 2004, Ocena podatności wód podziemnych na zanieczyszczenia w dolinie rzecznej na podstawie przesłanek hydrodynamicznych. WUW, Warszawa.

Krogulec E., Sikorska-Maykowska M., 1996, Projekt lokalnej sieci monitoringu wód powierzchniowych i podziemnych na obszarze Kampinoskiego Parku Narodowego wraz z otuliną. Arch. KPN, Izabelin.

Krogulec E., Sikorska-Maykowska M., 2001, Optymalne warunki do projektowania monitoringu lokalnego

wód podziemnych i powierzchniowych na przykładzie Kampinoskiego Parku Narodowego. Gospodarka Wodna, 6, 251-255.

Kutilek M., Nielsen D.R., 1994, Soil Hydrology. Catena Verlag, Cremlingen-Destedt, Germany. Laio F., Porporato A., Fernandez-Illescas C. P., Rodriguez-Iturbe I., 2001a, Plants in water-controlled ecosystems: active role in hydrologic processes and response to water stress: IV. Discussion of real cases. Advances in Water Resources, 24, 7, 745-762. [https://doi.org/10.1016/S0309-1708\(01\)00007-0](https://doi.org/10.1016/S0309-1708(01)00007-0)

Laio F., Porporato A., Ridolfi L., Rodriguez-Iturbe I., 2001b, Plants in water-controlled ecosystems: active role in hydrologic processes and response to water stress: II. Probabilistic soil moisture dynamics. Advances in Water Resources, 24, 7, 707-723. [https://doi.org/10.1016/S0309-1708\(01\)00005-7](https://doi.org/10.1016/S0309-1708(01)00005-7)

Lamb R., Beven K.J., 1997, Using interactive recession curve analysis to specify a general catchment storage model. Hydrology and Earth System Sciences Journal, 1, 1, 101-113. <https://doi.org/10.5194/hess-1-101-1997>

Lin H., 2003, Hydropedology: Bridging Disciplines, Scales, and Data. Vadose Zone Journal, 2, 1, 1-11. <https://doi.org/10.2136/vzj2003.1000>

Lin H., Rathbun S., 2003, Hierarchical Frameworks for Multiscale Bridging in Hydropedology. [W:] Scaling methods in soil physics, Y. Pachepsky, D.E. Radcliffe, H.M. Selim (ed.), 347-371. CRC Press, Boca Raton, London, New York, Washington, D.C. <https://doi.org/10.1201/9780203011065.ch19>

Lwowicz M.I., 1979, Zasoby wodne świata. PWN, Warszawa.

- Malicki M.A., 1993, Wpływ fizycznych właściwości gleby na elektryczne parametry układu elektrody/gleba w aspekcie pomiaru jej wilgotności i zasolenia. Rozprawa habilitacyjna. Acta Agrophysica, O. Instytut Agrofizyki PAN, Lublin.
- Malicki M.A., Skierucha W., 2002, Elektryczny pomiar wilgotności gleby metodą TDR. Acta Agrophysica, 72, 89-98.
- Mc Cuen, R.H., 1989, Hydrologic Analysis and Design. Prentice Hall.
- Mc Namara J. P., Chandler D., Seyfried M., Achet S., 2005, Soil moisture states, lateral flow, and streamflow generation in a semi-arid, snowmelt-driven catchment. Hydrological Processes, 19, 20, 4023-4038. <https://doi.org/10.1002/hyp.5869>
- Menziani M., Rivasi M.R., Pugnaghi S., Santangelo R., Vincenzi S., 1996, Soil volumetric water content measurements using TDR technique. Annali di Geofisica, 39, 1, 91-96. <https://doi.org/10.4401/ag-3953>
- Menziani M., Pugnaghi S., Pilan L., Santangelo R., Vincenzi S., 2001, TDR Soil moisture Measurements at the Lago Maggiore MAP Target Area: Preliminary Results. Physics Chemistry of the Earth (B), 26, 5-6, 431-436. [https://doi.org/10.1016/S1464-1909\(01\)00031-4](https://doi.org/10.1016/S1464-1909(01)00031-4)
- Menziani M., Pugnaghi S., Vincenzi S., Santangelo R., 2003, Soil moisture monitoring in the Toce valley (Italy). Hydrology and Earth System Sciences, 7, 6, 890-902. <https://doi.org/10.5194/hess-7-890-2003>
- Miler A., 1994, Modelowanie matematyczne zdolności retencyjnych małych zlewni nizinnych. Roczniki Akademii Rolniczej w Poznaniu, Rozprawy Naukowe, 58. Wyd. AR, Poznań.
- Milly P.D.C., 2001, A minimalist probabilistic description of root zone soil water. Water Resources Research, 37, 3, 457-463. <https://doi.org/10.1029/2000WR900337>
- Moss M.E., 2003, A plan for the advancement of hydrologic science. Geophysical Research Abstracts, 5, 14910.
- Nachabe M., Masek C., Obeysekera J., 2004, Observations and Modeling of Profile Soil Water Storage above a Shallow Water Table. Soil Science Society of America Journal, 68, 3, 719-724. <https://doi.org/10.2136/sssaj2004.7190>
- Naden P.S., Blyth E.M., Broadhurst P., Watts C.D., Wright I.R., 2000, Modelling the spatial variation in soil moisture at the landscape scale: an application to five areas of ecological interest in the UK. Hydrological Processes, 14, 4, 785-809. [https://doi.org/10.1002/\(SICI\)1099-1085\(200003\)14:4<785::AID-HYP972>3.3.CO;2-O](https://doi.org/10.1002/(SICI)1099-1085(200003)14:4<785::AID-HYP972>3.3.CO;2-O)
- Nielsen D.R., Kutilek M., Parlange M. B., 1996, Surface soil water content regimes: opportunities in soil science. Journal of Hydrology, 184, 1-2, 35-55. [https://doi.org/10.1016/0022-1694\(95\)02967-2](https://doi.org/10.1016/0022-1694(95)02967-2)
- Nowosielska E., 1977, Analiza regresji w badaniach geograficznych. [W:] Metody ilościowe i modele w geografii, Z. Chojnicki (red.), 16-45. PWN, Warszawa.
- NRC (National Research Council), 1999, Global Environmental Change: Research Pathways for the Next Century. National Academy Press, Washington D.C.
- NRC (National Research Council), 2004, Groundwater Fluxes Across Interfaces. National Academy Press, Washington, D.C.

- Nyberg L., 1996, Spatial variability of soil water content in the covered catchment at Gardsjon, Sweden. *Hydrological Processes*, 10, 1, 89-103. [https://doi.org/10.1002/\(SICI\)1099-1085\(199601\)10:1<89::AID-HYP303>3.0.CO;2-W](https://doi.org/10.1002/(SICI)1099-1085(199601)10:1<89::AID-HYP303>3.0.CO;2-W)
- Ok T., 2005, The Hydrologic Cycles and Global Circulation. [W:] *Encyclopedia of Hydrological Sciences*, M.G. Anderson (ed.), Vol. 1, 13-22. Wiley & Sons, Chichester. <https://doi.org/10.1002/0470848944.hsa001>
- Oleszczuk R., Brandyk T., 2005, Przegląd metod pomiaru wilgotności gleb torfowo-murszowych użytkowanych rolniczo. *Postępy Nauk Rolniczych*, 2, 3-13.
- O'Loughlin E.M., 1981, Saturation regions in catchment and their relations to soil and topographic properties. *Journal of Hydrology*, 53, 3-4, 229-246. [https://doi.org/10.1016/0022-1694\(81\)90003-2](https://doi.org/10.1016/0022-1694(81)90003-2)
- Ostaszewska K., 2002, *Geografia krajobrazu*. Wyd. Naukowe PWN, Warszawa.
- Ostromski J., 1964, *Wstęp do melioracji rolnych*. PWRiL, Warszawa.
- Ozga-Zielińska M. (red.), 1994, *Modelowanie procesów hydrologicznych*. Monografie Komitetu Gospodarki Wodnej PAN, 5. Oficyna Wyd. Politechniki Warszawskiej, Warszawa.
- Paniconi C., Verhoest N., Troch P.A., 1997, Soil Moisture Mapping From Multitemporal Analysis of ERS SAR Images. *Earth Observation Quarterly*, 56-57, 23-27. European Space Agency. Pardé M., 1957, *Rzeki*. PWN, Warszawa.
- Pazdro Z., Kozerski B., 1990, *Hydrogeologia ogólna*. Wyd. Geologiczne, Warszawa.
- Peck A.J., 1983, Field variability of soil physical properties. [W:] *Advances in Irrigation*, D. Hillel (ed.), 2, 61-97. Academic Press Inc., New York. <https://doi.org/10.1016/B978-0-12-024302-0.50012-6>
- Peters E., 2003, Propagation of drought through groundwater systems. Illustrated in the Pang (UK) and Upper-Guadiana (ES) catchments. Wageningen University, the Netherlands.
- Pfister L. (ed.), 2003, *ERB NEWS*. Euromediterranean Network of Experimental and Representative Basins Newsletter, 16. Luxembourg.
- Pociask-Karteczka J., 2003, Retencja. [W:] *Zlewnia. Właściwości i procesy*, J. Pociask-Karteczka (red.), 247-254. IGUJ, Kraków.
- Porporato A., Daly E., Rodriguez-Iturbe I., 2004, Soil Water Balance and Ecosystem Response to Climate Change. *The American Naturalist*, 164, 5, 625-632. <https://doi.org/10.1086/424970>
- Porporato A., D'Odorico P., Laio F., Ridolfi L., Rodriguez-Iturbe I., 2002, Ecohydrology of water-controlled ecosystems. *Advances in Water Resources*, 25, 8-12, 1335-1348. [https://doi.org/10.1016/S0309-1708\(02\)00058-1](https://doi.org/10.1016/S0309-1708(02)00058-1)
- Ramillien G., Cazenave A., Brunau O., 2004, Global time variations of hydrological signals from GRACE satellite gravimetry. *Geophysical Journal International*, 158, 3, 813-826. <https://doi.org/10.1111/j.1365-246X.2004.02328.x>
- Ramillien G., Frappart F., Cazenave A., Güntner A., 2005, Time variations of land water storage from an inversion of 2 years of GRACE geoid. *Earth and Planetary Science Letters*, 235, 1-2, 283-301. <https://doi.org/10.1016/j.epsl.2005.04.005>

Reedy R.C., Scanlon B.R., 2003, Soil water content monitoring using electromagnetic induction. *Journal of Geotechnical and Geoenvironmental Engineering*, 129, 11, 1028-1039.
[https://doi.org/10.1061/\(ASCE\)1090-0241\(2003\)129:11\(1028\)](https://doi.org/10.1061/(ASCE)1090-0241(2003)129:11(1028))

Richling A., Solon J., 1996, *Ekologia krajobrazu*. Wyd. Nauk. PWN, Warszawa.

Roberts G., Crane S. B., 1997, Temporal variations in near surface soil moisture at two contrasting sites in the Wye catchment and their control on storm streamflow generation. *Hydrology and Earth System Sciences*, 1, 3, 453-461. <https://doi.org/10.5194/hess-1-453-1997>

Robock A., Vinnikov K.Y. Srinivasan G., Entin J.K., Hollinger S.E., Speranskaya N.A., Liu S.,

Namkhai A., 2000, The Global Soil Moisture Data Bank. *Bulletin of the American Meteorological Society*, 81, 6, 1281-1299. [https://doi.org/10.1175/1520-0477\(2000\)081<1281:TGSMDB>2.3.CO;2](https://doi.org/10.1175/1520-0477(2000)081<1281:TGSMDB>2.3.CO;2)

Rodriguez-Iturbe I., 2000, Ecohydrology: A hydrologic perspective of climate-soil-vegetation dynamics. *Water Resources Research*, 36, 1, 3-9. <https://doi.org/10.1029/1999WR900210>

Rodriguez-Iturbe I., Porporato A., 2005, Stochastic soil moisture dynamics and water balance. [W:] *Plants and Soil Moisture Dynamics: A Theoretical Approach to the Ecohydrology of Water-Controlled Ecosystems*, I. Rodriguez-Iturbe, A. Porporato, 15-58. Cambridge University Press, Cambridge, UK.
<https://doi.org/10.1017/CBO9780511535727>

Rodriguez-Iturbe I., Porporato A., Laio F., Ridolfi L., 2001, Plants in water-controlled ecosystems: active role in hydrologic processes and response to water stress: I. Scope and general outline. *Advances in Water Resources*, 24, 7, 695-705. [https://doi.org/10.1016/S0309-1708\(01\)00004-5](https://doi.org/10.1016/S0309-1708(01)00004-5)

Rodriguez-Iturbe I., Porporato A., Ridolfi L., Isham V., Cox D.R., 1999, Probabilistic Modeling of Water Balance at a point: The Role of Climate, Soil and Vegetation. *Proceedings Royal Society Series A*, 455, 3789-3805. <https://doi.org/10.1098/rspa.1999.0477>

Rudolf B., Fuchs T., Schneider U., Meyer-Christoffer A., 2003, Introduction of the Global Precipitation Climatology Centre (GPCC). *Deutscher Wetterdienst*, Offenbach a.M.

Rushton K.R., 2003, *Groundwater hydrology. Conceptual and computational models*. John Wiley and Sons, Chichester, England. <https://doi.org/10.1002/0470871660>

Rushton K.R., Eilers V.H.M., Carter R.C., 2006, Improved soil moisture balance methodology for recharge estimation. *Journal of Hydrology*, 318, 1-4, 379-399.
<https://doi.org/10.1016/j.jhydrol.2005.06.022>

Ryszkowski L., Bałazy S., Kózdziara A., 2003, *Kształtowanie i ochrona zasobów wodnych na obszarach wiejskich*. Zakład Badań Środowiska Rolniczego i Leśnego PAN, Poznań.

Salvuci G., Levine J., 2001, Groundwater-Vadose Zone Interactions at Trochu. [W:] *Spatial patterns in catchment hydrology. Observations and Modeling*, R. Grayson, G. Blöschl (ed.), 304--325. Cambridge University Press, Cambridge, UK.

Scanlon B.R., Healy R.W., Cook P.G., 2002, Choosing appropriate techniques for quantifying groundwater recharge. *Hydrogeology Journal*, 10, 1, 18-39. <https://doi.org/10.1007/s10040-001-0176-2>

Schöniger, M., 1990, Beitrag zur Abflußbildung und Grundwasserneubildung im paläozoischen Festgestein (Lange Bramke, Oberharz). *Landschaftsökologie. u. Umweltforsch.*, 18, 1-203.

- Schume H., Jost G., Hager H., 2004, Soil water depletion and recharge patterns in mixed and pure forest stands of European beech and Norway spruce. *Journal of Hydrology*, 289, 1-4, 258-274. <https://doi.org/10.1016/j.jhydrol.2003.11.036>
- Scipal K., Scheffler C., Wagner W., 2005, Soil moisture runoff relation at the catchment scale as observed with coarse resolution microwave remote sensing. *Hydrology and Earth System Sciences*, 2, 2, 417-448. <https://doi.org/10.5194/hessd-2-417-2005>
- Seneviratne S.I., Hirschi M., Viterbo P., Lüthi D., Schär C., 2003, Water-balance estimates of changes in terrestrial water storage using ERA-40 reanalysis data: Validation and potential applications. Joint Assembly of the EGS/AGU/EUG, April 2003, Nice, France. [https://doi.org/10.1175/1520-0442\(2004\)017<2039:ICITWS>2.0.CO;2](https://doi.org/10.1175/1520-0442(2004)017<2039:ICITWS>2.0.CO;2)
- Seneviratne, S.I., Viterbo, P., Lüthi, D., Schär, C., 2004: Inferring changes in terrestrial water storage using ERA-40 reanalysis data: the Mississippi river basin. *Journal of Climate*, 17, 11, 2039-2057. [https://doi.org/10.1175/1520-0442\(2004\)017<2039:ICITWS>2.0.CO;2](https://doi.org/10.1175/1520-0442(2004)017<2039:ICITWS>2.0.CO;2)
- Seuffert G., Wilker H., Viterbo P., Drusch M., Mahfouf J.-F., 2004, The usage of screen-level parameters and microwave brightness temperature for soil moisture analysis. *Journal of Hydrometeorology*, 5, 3, 516-531. [https://doi.org/10.1175/1525-7541\(2004\)005<0516:TUOSPA>2.0.CO;2](https://doi.org/10.1175/1525-7541(2004)005<0516:TUOSPA>2.0.CO;2)
- Seyfried M., 1998, Spatial variability constraints to modeling soil water at different scales. *Geoderma*, 85, 2-3, 231-254. [https://doi.org/10.1016/S0016-7061\(98\)00022-6](https://doi.org/10.1016/S0016-7061(98)00022-6)
- Shiklomanov I.A. (ed.), 1999, World water resources at the beginning of the 21st century. State Hydrological Institute, St. Petersburg.
- Skøien J.O., Blöeschl G., Western A.W., 2003, Characteristic space scales and timescales in hydrology. *Water Resources Research*, 39, 10, 1304-1323. <https://doi.org/10.1029/2002WR001736>
- Sloto R.A., Crouse M.Y., 1996, HYSEP: A computer program for stream flow hydrograph separation and analysis. U.S. Geological Survey, Water-Resources Investigations, Report 96-4040.
- Sławiński C., Sobczuk H., Walczak R.T., 1999, Modelowanie preferencyjnego przepływu wody w glebie. *Annales Universitatis Mariae Curie-Skłodowska, Sectio AAA, Fizyka*, 54, 44-51.
- Smith K.A., Mullins C.E. (ed.), 2000, Soil and Environmental Analysis: Physical Methods. Marcel Dekker Inc., New York.
- Soczyńska U., 1989, System hydrologiczny zlewni i modelowanie procesów obiegu wody. [W:] U. Soczyńska (red.): Procesy hydrologiczne. Fizycznogeograficzne podstawy modelowania, 9-19. PWN, Warszawa.
- Soczyńska U. (red.), 1997, *Hydrologia dynamiczna*. Wyd. Nauk. PWN.
- Soczyńska U., 2001, Dynamika zlewni. Stan badań, oczekiwania i rzeczywistość. [W:] Dynamika obiegu wody w zlewniach rzecznych, J. Jaworski, J. Szkutnicki (red.), 7-17. Seria: Atlasy i monografie, IMGW, Warszawa.
- Soczyńska U., Gutry-Korycka M., Pokojńska P., Mikos D., 2003, Water balance as base for proper water management in the Łasica catchment (Kampinoski National Park). *International Journal of Ecohydrology & Hydrobiology*, 3, 3, 291-309.

Solon J., Ustrnul Z., 1999, Refleksje nad stanem badań struktury przestrzennej w geografii fizycznej. [W:] Geografia w Uniwersytecie Jagiellońskim, t. IV: Geografia polska u progu trzeciego tysiąclecia, B. Domański, W. Widacki (red.), 71-89. IGUJ, Kraków.

Solon J., 2002, Ocena różnorodności krajobrazu na podstawie analizy struktury przestrzennej roślinności. *Prace Geograficzne*, 185, Instytut Geografii i Przestrzennego Zagospodarowania PAN, Warszawa.

Somorowska U., 1991, Podstawy modelowania obszarów zasilania w zlewni. *Prace i Studia Geograficzne*, 12, 139-155.

Somorowska U., 1997, Estimation of the soil moisture conditions using TDR meter in the Łasica catchment, Poland. *Geophysical Research Abstracts*, 3. European Geophysical Society.

Somorowska U., 1998, Seasonal changes of wetness conditions in the catchment. *Miscellanea Geographica*, 8, 87-94. <https://doi.org/10.2478/mgrsd-1998-080110>

Somorowska U., 2001a, Wieloletni rytm zmian opadów, stanów wód podziemnych i przepływów w małej zlewni nizinnej. *Przegląd Geofizyczny*, 46, 3, 97-107.

Somorowska U., 2001b, Extreme stages of the wetness conditions evaluated from direct soil moisture measurements in the Łasica catchment, Poland. *Journal of the CEU Department of Environmental Sciences and Policy*, Budapest, Hungary, 4, 23-36.

Somorowska U., 2002a, Rekonstrukcja historycznych stanów retencji strefy aeracji w zlewni przekształconej antropogenicznie. *Prace Instytutu Geografii AŚ w Kielcach (Obieg wody w zmieniającym się środowisku)*, 7, 87-94.

Somorowska U., 2002b, Extreme stages of the basin wetness conditions. Variability of the soil moisture in a lowland basin. [W:] FRIEND 2002 - Regional Hydrology: Bridging the gap between research and practice. *Proc. International FRIEND Conference*, Cape Town, South Africa, March 2002, H.A.J. van Lanen, S. Demuth (ed.), 389-395. IAHS Red Book Series, Publ. 274.

Somorowska U., 2002c, Linking research, policy and practice for managing dynamic water resources in a protected area. [W:] International Assessment and Decision Support proceedings of the 1st biennale meeting of the International Environmental Modelling and Software Society, 1, A.E. Rizzoli, A.J. Jakeman (ed.), 66-71. University of Lugano, Switzerland,

Somorowska U., 2002d, Simulation of the soil water storage in risk situations. Management framework of the wetness conditions at a basin scale. [W:] Risk Analysis III, Third International Conference on Computer Simulations in Risk Analysis and Hazard Mitigation, C.A. Brebbia (ed.), 573-582. Wessex Institute of Technology Press, Southampton, Boston.

Somorowska U., 2002e, Perspectives of Water Management in a Protected Area of the Kampinos National Park. *Miscellanea Geographica*, 10, 167-174. <https://doi.org/10.2478/mgrsd-2002-0018>

Somorowska U., 2003a, Soil moisture fluctuations from TDR measurements. *Baltex Newsletter*, 5, 9-12. World Climate Research Programme (WCRP)/Global Energy and Water Cycle Experiment.

Somorowska U., 2003b, Risk assessment of the occurrence of the extreme values of groundwater levels, discharge and soil moisture stages. *International Journal of Ecohydrology & Hydrobiology*, 3, 3, 311-321.

Somorowska U., 2004a, Water storage in the vadose zone evaluated from TDR soil moisture measurement. *Acta Agrophysica*, 4, 1, 169-176.

Somorowska U., 2004b, Temporal patterns of the subsurface water storage inferred from the TDR soil moisture measurements. [W:] *Progress in Surface and Subsurface Water Studies at the Plot and Small Basin Scale - Int. ERB Conference*, D. Tropeano, M. Arattano, F. Maraga, C. Pellisaro (ed.), 32-35. Italian Nat. Research Council, Turin.

Somorowska U., 2004c, Inferring changes in dynamic groundwater storage from recession curve analysis of discharge data. *Miscellanea Geographica*, 11, 155-162. <https://doi.org/10.2478/mgrsd-2004-0018>

Somorowska U., 2005, Temporal patterns of the subsurface water storage inferred from the soil moisture TDR measurements. [W:] *Progress in surface and subsurface water studies at the plot and small basin scale: Proceedings of the 10th ERB Conference*, Turin, Italy, 13-17 October 2004, F. Maraga, M. Arattano (ed.), 27-33. Technical Documents in Hydrology, 77, UNESCO, Paris.

Somorowska U., 2006 (w druku), Physical insight into soil water storage interacting in the soil-plant-atmosphere system. [W:] *FRIEND 2006 - Water Resources Variability: Processes, Analyses and Impacts*. Proc. Fifth FRIEND World Conference, Havana, Cuba. IAHS Red Book Series, IAHS Press.

Somorowski C., 1965, Zasoby wilgoci gruntowej w bilansie wodnym zlewni rzecznych. Dział Wydawnictw SGGW, Warszawa.

Somorowski C., 1967, Zasoby wody profilu glebowego w bilansie wodnym zlewni rzecznych. *Wiadomości IMUZ*, 7, 1, 14-51.

Somorowski C., 1970, Ocena stanu uwilgotnienia gleb w zlewni rzeki Tucznej. *Zesz.Nauk. SGGW - Melioracje Rolne*, 9, 75-82.

Sophocleous, M.A., 2002, Interactions between groundwater and surface water: The state of the science. *Hydrogeology Journal*, 10, 1, 52-67. <https://doi.org/10.1007/s10040-001-0170-8>

Sophocleous, M.A., 2003. Mapping groundwater levels. [W:] *Encyclopedia of Water Science*, B.A. Stewart, T. Howell (ed.), 336-341. Marcel-Dekker, New York.

Sposito G. (ed.), 1998, Scale dependence and scale invariance in hydrology. Cambridge University Press, Cambridge, UK. <https://doi.org/10.1017/CBO9780511551864>

Stach A., Tamulewicz J., 2003, Wstępna ocena przydatności wybranych algorytmów przestrzennej estymacji miesięcznych i rocznych sum opadów na obszarze Polski. [W:] *Funkcjonowanie geoeosystemów zlewni rzecznych*, t. 3, Obieg wody - uwarunkowania i skutki w środowisku przyrodniczym, Instytut Badań Czwartorzędu i Geoekologii UAM, A. Kostrzewski, J. Szpikowski (red.), 87-111. Bogucki Wydawnictwo Naukowe, Poznań.

Starkel L., 1994, Perspektywy geografii fizycznej: monitoring obiegu energii i materii, regionalizm i globalizm. [W:] *Ogólnopolski Zjazd PTG, Referaty i Postery*, 20-22. Polskie Towarzystwo Geograficzne Oddział Lubelski, UMCS, Lublin.

Szymczak T., Szelenbaum C., 2003, Identifying runoff source areas in a small lowland catchment using the topographic wetness index. *Journal of Water and Land Development*, 7, 49-63.

Tallaksen L.M., 1995, A review of baseflow recession analysis. *Journal of Hydrology*, 165, 1-4, 349-370. [https://doi.org/10.1016/0022-1694\(95\)92779-D](https://doi.org/10.1016/0022-1694(95)92779-D)

Tapley B.D., Bettadpur S., Ries J.C., Thompson P.F., Watkins M., 2004, GRACE Measurements of Mass Variability in the Earth System. *Science*, 305(5683), 503-505.

<https://doi.org/10.1126/science.1099192>

Tomaszewski E., 2001, Sezonowe zmiany odpływu podziemnego w Polsce w latach 1971-1990. *Acta Geographica Lodziensia*, 78. Łódzkie Tow. Nauk., Łódź.

Urowicz B., 1999, Zastosowanie analizy geostatystycznej i teorii fraktali w badaniach dynamiki wilgotności w profilu glebowym na polach uprawnych. *Acta Agrophysica*, 22, 229-243.

Ustrnul Z., 2001, Dane gridowe a cyrkulacja atmosferyczna. *Rocznik Fizycznogeograficzny*, 6, 7-12.

Vinnikov K.Y., Robock A., Speranskaya N.A., Zabelin V. 1997. The Global Soil Moisture Data Bank. Plant-available soil moisture data sets for the former Soviet Union from gravimetric observations. *GEWEX News*, 7, 2.

Wagner W., Scipal K., Pathe C., Gerten D., Lucht W., Rudolf B., 2003, Evaluation of the agreement between the first global remotely sensed soil moisture data with model and precipitation data. *Journal of Geophysical Research - Atmospheres*, 108, D19, 4611.

<https://doi.org/10.1029/2003JD003663>

Walker J.P., Willgoose G.R., Kalma J.D., 2004, In situ measurement of soil moisture: a comparison of techniques. *Journal of Hydrology*, 293, 1-4, 85-99. <https://doi.org/10.1016/j.jhydrol.2004.01.008>

Webster R., Oliver M.A., 2004, *Geostatistics for Environmental Scientists*. John Wiley & Sons LTD, Chichester.

Weiler M., McDonnell J., 2004, Virtual experiments: a new approach for improving process conceptualization in hillslope hydrology. *Journal of Hydrology*, 285, 1-4, 3-18.

[https://doi.org/10.1016/S0022-1694\(03\)00271-3](https://doi.org/10.1016/S0022-1694(03)00271-3)

Weiss N.A., 1989, *Elementary Statistics*. Addison-Wesley Publ. Company.

Western A. W., Blöeschl G., Grayson R.B., 1998, Geostatistical characterisation of soil moisture patterns in the Tarrawarra catchment. *Journal of Hydrology*, 205, 1-2, 20-37.

[https://doi.org/10.1016/S0022-1694\(97\)00142-X](https://doi.org/10.1016/S0022-1694(97)00142-X)

Western A. W., Grayson R.B., 1998, The Tarrawarra data set: soil moisture patterns, soil characteristics, and hydrological flux measurements. *Water Resources Research*, 34, 10, 2765-2768.

<https://doi.org/10.1029/98WR01833>

Western A. W., Grayson R.B., 2001, Soil Moisture and Runoff Processes in Tarrawarra. [W:] *Spatial patterns in catchment hydrology. Observations and Modelling*, R. Grayson, G. Blöeschl (ed.), 209-246. Cambridge University Press, Cambridge, UK.

Western A.W., Zhou S.-L., Grayson R.B., McMahon T.A., Blöeschl G., Wilson D.J., 2004, Spatial correlation of soil moisture in small catchments and its relationship to dominant spatial hydrological processes. *Journal of Hydrology*, 286, 1-4, 113-134. <https://doi.org/10.1016/j.jhydrol.2003.09.014>

Węglarczyk S., 1998, Wybrane problemy hydrologii stochastycznej. *Seria Inżynieria Sanitarna i Wodna, Monografia 235*. Politechnika Krakowska, Kraków.

Wittenberg H., 1994, Nonlinear analysis of flow recession curves. *IAHS Publ.* 221, 202-212.

Wittenberg H., 1999, Baseflow recession and recharge as nonlinear storage processes. *Hydrological Processes*, 13, 5, 715-726. [https://doi.org/10.1002/\(SICI\)1099-1085\(19990415\)13:5<715::AID-HYP775>3.0.CO;2-N](https://doi.org/10.1002/(SICI)1099-1085(19990415)13:5<715::AID-HYP775>3.0.CO;2-N)

Wittenberg H., 2003, Effects of season and man-made changes on baseflow and flow recession: case studies. *Hydrological Processes*, 17, 11, 2113-2123. <https://doi.org/10.1002/hyp.1324>

Wittenberg H., Sivapalan M., 1999, Watershed groundwater balance estimation using streamflow recession analysis and baseflow separation. *Journal of Hydrology*, 219, 1-2, 20-33. [https://doi.org/10.1016/S0022-1694\(99\)00040-2](https://doi.org/10.1016/S0022-1694(99)00040-2)

Wood E.F., 1998, Scale analysis for Land-Surface Hydrology. [W:] Scale dependence and scale invariance in hydrology, G. Sposito (ed.), 1-29. Cambridge University Press, Cambridge, UK. <https://doi.org/10.1017/CBO9780511551864.002>

Wyszkowski A., 2001, Bazy gridowych danych klimatologicznych. *Rocznik Fizycznogeograficzny*, 6, 125-180.

Żyromski A., 2003, Opad atmosferyczny jako kryterium oceny zasobów wodnych gleby. [W:] *Dynamika obiegu wody w zlewniach rzecznych*, J. Jaworski, J. Szkutnicki (red.), 101-114. Seria: Atlasy i monografie, IMGW, Warszawa.