Dragutin Mihailović is the retired Professor in Meteorology and Environmental Fluid Mechanics at the University of Novi Sad (Serbia). He obtained his B.Sc. degree in Physics and his M.Sc. and Ph.D. degrees in Meteorology at the University of Belgrade. He was the Visiting Professor at University of Albany-SUNY, Visiting Researcher at Norwegian Meteorological Institute and Wageningen University & Research. He has more than 100 peer-reviewed scientific papers in the international journals in subjects related to land-atmosphere processes, air pollution and chemical transport modeling, boundary layer meteorology, physics and modelling of environmental interfaces, modelling of complex biophysical systems, nonlinear dynamics, psychophysics and complexity. He edited six monographs in environmental fluid mechanics and co-authored two books on environmental surfaces and physics of complex systems (Elsevier and Taylor and Francis). He was the member of the Editorial Board of Environmental Modelling and Software (1992-2010). Currently, he is the member of the journal Transactions in Optics and Photonics and reviewer in several scientific journals. He was the principal investigator in a FP6 project and several international projects (Colorado State University, University of Albany-SUNY and several European countries).

Books

Mihailović D. T., & Kapor, D., Crvenković, S., & Mihailović, A. (2023). *Physics of Complex Systems: Discovery in the Age of Gödel*. CRC Press.

Janjić, T., Mihailović D. T., & Ničković S. (Eds.). (2020). *Walking the science's narrowpath: Zaviša Janjić*. Nova Science Publishers Inc.

Mihailović, D. T., Balaž, I., & Kapor, D. (2016). *Time and methods in environmental interfaces modeling*. Elsevier. Gualtieri, C., & Mihailović, D. T. (Eds.). (2012). *Fluid mechanics of environmentalinterfaces* (2 nd ed.). Taylor & Francis.

Mihailović, D. T. (Ed.). (2012). *Essays of Fundamental and Applied Environmental Topics.* Nova Science Publishers Inc.

Mihailović, D. T., & Gualtieri C. (Eds.). (2010). *Advances in environmental fluid mechanics.* World Scientific Publishing.

Mihailović, D. T., & Lalić, B. (Eds.). (2010). *Advances in environmental modeling and measurements*, Nova Science Publishers Inc.

Mihailović, D. T., & Vojnović Miloradov, M. (Eds.). (2009). *Environmental, health and humanity issues in the down Danubian region: Multidisciplinary approaches.* WorldScientific Publishing**.**

Gualtieri, C., & Mihailović, D. T. (Eds.). (2008). *Fluid mechanics of environmentalinterfaces.* Taylor & Francis.

International journals

Mihailović, D.T.; Malinović-Milićević, S. A. (2025). Novel Approach to Understanding the Complexity of Precipitation. *Atmosphere*, *16*, 706. https://doi.org/10.3390/atmos16060706

Mihailović, D.T. (2025) Permutation Entropy and Its Niche in Hydrology: A Review. *Entropy* , *27*, 598. https://doi.org/10.3390/e27060598

Mihailović, D.T. (2025). Complexity in Nonlinear and Quantum Optics by Considering Kolmogorov Derivatives and Change Complexity Information Measures. *TOP*, *1*(1), 1–8. Available online: https://ojs.wiserpub.com/index.php/top/article/view/5454.

Mihailović, D.; Singh, V. (2024). Information in complex physical systems: Kolmogorov complexity plane of interacting amplitudes. *Phys. Complex Syst*. *5*, 146–153.

Mihailović, D. T., Malinović-Milićević, S., Frau, F. J., Singh, V. P., & Han J. (2024). Predictability of monthly streamflow by considering complexity measures. *Journal of Hydrology*, *634*, 131103. https://doi.org/10.1016/j.jhydrol.2024.131103

Mihailović, D. T., Malinović-Milićević, S., Han, J.-S., & Singh, V. P. (2023). Complexity and chaotic behavior of the U.S. Rivers and estimation of their prediction horizon. *Journal of Hydrology*, *622*, 129730. https://doi.org/10.1016/j.jhydrol.2023.129730

Milanović, S., Mihailović, D. T., Lakićević, M., Đurđević, V., Malinović-Milićević, S., Milanović, S. D & Trailović, Z. (2023). Impact of UV radiation and temperature on the spongy moth and the brown-tail moth in Serbia. *Austrian Journal of Forest Science*, *140*(1), 1–20. https://doi.org/10.53203/fs.2301.1

Gualtieri, C., Mihailović, A., & Mihailović, D. T. (2022). An application of Kolmogorov complexity and its spectrum to positive surges. *Fluids*, *7*(5), 162. https://doi.org/10.3390/fluids7050162

Malinović-Milićević, S., Mihailović, A., & Mihailović, D. T. (2022). Kolmogorov complexity analysis and prediction horizon of the daily erythemal dose time series. *Atmosphere*, *13*(5), 746. https://doi.org/10.3390/atmos13050746

Aksentijević, A., Mihailović, A., & Mihailović, D. T. (2021). A novel approach to the study of spatio-temporal brain dynamics using change-based complexity. *Applied Mathematics and Computation*, *410*, 126432. https://doi.org/10.1016/j.amc.2021.126432

Aksentijević, A., Duffy, F., Mihailović, A., & Mihailović, D. T. (2021). In plain sight: Implicit priming of patterns and faces using change symmetry. *Psychological Research*, *85*(7), 2710– 2726. https://doi.org/10.1007/s00426-020-01434-w

Avdić, S., Mihailović, D. T., & Mihailović, A. (2021). Estimation of ^{240}Pu effective mass of fuel plates based on a singles and coincidence acquisition mode with organic scintillators. *Journal of Radioanalytical and Nuclear Chemistry*, *329*(3), 1223–1236. https://doi.org/10.1007/s10967- 021-07915-5

Mihailović, D. T., Avdić, S., & Mihailović, A. (2021). Complexity measures and occurrence of the ‘breakpoint’ in the neutron and gamma-rays time series measured with organic scintillators. *Radiation Physics and Chemistry*, *184*, 109482.
https://doi.org/10.1016/j.radphyschem.2021.109482

Aksentijević, A., Mihailović, D. T., Mihailović, A., & Singh, V. P. (2021). Regime-related regularities in river flow revealed by Aksentijevic-Gibson complexity. *Journal of Hydrology*, *598*, 126364. https://doi.org/10.1016/j.jhydrol.2021.126364

Mihailović, D. T., Aksentijević, A., & Mihailović, A. (2021). Mapping regularities in the solar irradiance data using complementary complexity measures. *Stochastic Environmental Research and Risk Assessment*, *35*(6), 1257–1272. https://doi.org/10.1007/s00477-020-01955-1

Arsenić, I., Krmar, M., & Mihailović, D. T. (2020). Calculating the complexity of spatially distributed physical quantities. *Modern Physics Letters B*, *34*(Supp01), 2150006. https://doi.org/10.1142/s0217984921500068

Taye, J., Lade, A. D., Mihailović, A., Mihailović, D. T., & Kumar, B. (2020). Information measures through velocity time series in a seepage affected alluvial sinuous channel. *Stochastic Environmental Research and Risk Assessment*, *34*(11), 1925–1938. https://doi.org/10.1007/s00477-020-01849-2

Aksentijević, A., Mihailović, A., & Mihailović, D. T. (2020). Time for change: Implementation of Aksentijevic-Gibson complexity in psychology. *Symmetry*, *12*(6), 948. https://doi.org/10.3390/sym12060948

Aksentijević, A., Mihailović, D. T., Kapor, D., Crvenković, S., Nikolić-Djorić, E., & Mihailović, A. (2020). Complementarity of information obtained by Kolmogorov and Aksentijevic–Gibson complexities in the analysis of binary time series. *Chaos, Solitons & Fractals*, *130*, 109394. https://doi.org/10.1016/j.chaos.2019.109394

Mihailović, D. T., Petrić, D., Petrović, T., Hrnjaković-Cvjetković, I., Djurdjević, V., Nikolić- Đorić, E., Arsenić, I., Petrić, M., Mimić, G., & Ignjatović-Ćupina, A. (2020). Assessment of climate change
impact on the malaria vector Anopheles hyrcanus, West Nile disease, & incidence of melanoma in the Vojvodina Province (Serbia) using data from a regional climate model. *PloS One*, *15*(1), e0227679. https://doi.org/10.1371/journal.pone.0227679

Lade, A. D., Mihailović, A., Mihailović, D. T., & Kumar, B. (2019). Randomness in flow turbulence around a bridge pier in a sand mined channel. *Physica. A*, *535*, 122426. https://doi.org/10.1016/j.physa.2019.122426

Mihailović, D. T., Nikolić-Đorić, E., Arsenić, I., Malinović-Milićević, S., Singh, V. P., Stošić, T., & Stošić, B. (2019). Analysis of daily streamflow complexity by Kolmogorov measures and Lyapunov exponent. *Physica. A*, *525*, 290–303. https://doi.org/10.1016/j.physa.2019.03.041

Bessafi, M., Mihailović, D. T., Li, P., Mihailović, A., & Chabriat, J. (2019). Algorithmic probability method versus Kolmogorov complexity with no-threshold encoding scheme for short time series: An analysis of day-to-day hourly solar radiation time series over tropical western Indian Ocean. *Entropy*, *21*(6), 552. https://doi.org/10.3390/e21060552

Mihailović, D. T., Nikolić-Đorić, E., Malinović-Milićević, S., Singh, V. P., Mihailović, A., Stošić, T., Stošić, B., & Drešković, N. (2019). The choice of an appropriate information dissimilarity measure for hierarchical clustering of river streamflow time series, based on calculated Lyapunov exponent and Kolmogorov measures. *Entropy*, *21*(2), 215. https://doi.org/10.3390/e21020215

Bessafi, M., Mihailović, D. T., Malinović-Milićević, S., Mihailović, A., Jumaux, G., Bonnardot, F., Fanchette, Y., & Chabriat, J. (2018). Spatial and temporal non-linear dynamics analysis and predictability of solar radiation time series for La Reunion Island (France). *Entropy*, *20*(12), 946. https://doi.org/10.3390/e20120946

Sharma, A., Mihailović, D. T., & KuMarch B. (2018). Randomness representation of turbulence in an alluvial channel affected by downward seepage. *Physica. A*, *509*, 74–85. https://doi.org/10.1016/j.physa.2018.06.012

Mihailović, D. T., Bessafi, M., Marković, S., Arsenić, I., Malinović-Milićević, S., Jeanty, P., Delsaut, M., Chabriat, J., Drešković, N., & Mihailović, A. (2018). Analysis of solar irradiation time series complexity and predictability by combining Kolmogorov measures and Hamming distance for La Reunion (France). *Entropy*, *20*(8), 570. https://doi.org/10.3390/e20080570

Ćirić, V., Drešković, N., Mihailović, D. T., Mimić, G., Arsenić, I., & Đurđević, V. (2017). Which is the response of soils in the Vojvodina region (Serbia) to climate change using regional climate simulations under the SRES-A1B?. *Catena*, *158*, 171–183. https://doi.org/10.1016/j.catena.2017.06.024

Mihailović, D. T., Mimić, G., Gualtieri, P., Arsenić, I., & Gualtieri, C. (2017). Randomness representation of turbulence in canopy flows using Kolmogorov complexity measures. *Entropy*, *19*(10), 519. https://doi.org/10.3390/e19100519

Mimić, G., Mihailović, D. T., & Kapor, D. (2017). Complexity analysis of the air temperature and the precipitation time series in Serbia. *Theoretical and Applied Climatology*, *127*(3–4), 891–898. https://doi.org/10.1007/s00704-015-1677-6

Mihailović, D. T., Drešković, N., Arsenić, I., Ćirić, V., Đurđević, V., Mimić, G., Pap, I., & Balaž, I. (2016). Impact of climate change on soil thermal and moisture regimes in Serbia: An analysis with data from regional climate simulations under SRES-A1B. *Science of the Total Environment*, *571*, 398–409. https://doi.org/10.1016/j.scitotenv.2016.06.142

Mihailović, D. T., Kostić, V., Balaž, I., & Kapor, D. (2016). Computing the threshold of the influence of intercellular nanotubes on cell-to-cell communication integrity. *Chaos, Solitons & Fractals*, *91*, 174–179. https://doi.org/10.1016/j.chaos.2016.06.001

Krmar, M., Mihailović, D. T., Arsenić, I., Radnović, D., & Pap, I. (2016). Beryllium-7 and ^{210}Pb atmospheric deposition measured in moss and dependence on cumulative precipitation. *Science of the Total Environment*, *541*, 941–948. https://doi.org/10.1016/j.scitotenv.2015.09.083

Jančić, M., Lalić, B., Mihailović, D. T., & Jaćimović, G. (2015). Impact of climate change and carbon dioxide fertilization effect on irrigation water demand and yield of soybean in Serbia. *Journal of Agricultural Science*, *153*(8), 1365–1379. https://doi.org/10.1017/s0021859615000179

Mihailović, D. T., Lalić, B., Drešković, N., Mimić, G., Đurđević, V., & Jančić, M. (2015). Climate change effects on crop yields in Serbia and related shifts of Köppen climate zones under the SRES-A1B and SRES-A2. *International Journal of Climatology*, *35*(11), 3320–3334. https://doi.org/10.1002/joc.4209

Mihailović, D. T., Kostić, V., Mimić, G., & Cvetković, Lj. (2015). Stability analysis of turbulent heat exchange over the heterogeneous environmental interface in climate models. *Applied Mathematics and Computation*, *265*, 79–90. https://doi.org/10.1016/j.amc.2015.04.121

Mihailović, D. T., Drešković, N., & Mimić, G. (2015). Complexity analysis of spatial distribution of precipitation: An application to Bosnia and Herzegovina. *Atmospheric Science Letters*, *16*(3), 324–330. https://doi.org/10.1002/asl2.563

Malinović-Milićević, S., Mihailović, D. T., & Radovanović, M. (2015). Reconstruction of the erythemal UV radiation data in Novi Sad (Serbia) using the NEOPLANTA parametric model. *Theoretical and Applied Climatology*, *121*(1–2), 131–138. https://doi.org/10.1007/s00704-014- 1223-y

Malinović-Milićević, S., Mihailović, D. T., Drešković, N., Đurđević, V., Mimić, G., & Arsenić, I. (2015). Climate change effects and UV-B radiation in the Vojvodina region, Serbia under the SRES-A2. *Thermal Science*, *19*(suppl. 2), 289–298. https://doi.org/10.2298/TSCI141207031M

Mihailović, D. T., Mimić, G., Drešković, N., & Arsenić, I. (2015). Kolmogorov ccomplexity based information measures applied to the analysis of different river flow regimes. *Entropy*, *17*(5), 2973–2987. https://doi.org/10.3390/e17052973

Mihailović, D. T., Mimić, G., Nikolić-Djorić, E., & Arsenić, I. (2015). Novel measures based on the Kolmogorov complexity for use in complex system behavior studies and time series analysis. *Open Physics*, *13*(1), 1–14. https://doi.org/10.1515/phys-2015-0001

Mihailović, D. T., Krmar, M., Mimić, G., Nikolić-Đorić, E., Smetanová, I., Holý, K., Zelinka, J., & Omelka, J. (2015). A complexity analysis of ^{222}Rn concentration variation: A case study for Domica cave, Slovakia for the period June 2010–June 2011. *Radiation Physics and Chemistry*, *106*, 88–94. https://doi.org/10.1016/j.radphyschem.2014.06.016

Mihailović, D. T., Kostić, V., Balaž, I., & Cvetković, Lj. (2014). Complexity and asymptotic stability in the process of biochemical substance exchange in a coupled ring of cells. *Chaos, Solitons & Fractals*, *65*, 30–43. https://doi.org/10.1016/j.chaos.2014.04.008

Mihailović, D. T., Mimić, G., & Arsenić, I. (2014). Climate predictions: The chaos and complexity in climate models. *Advances in Meteorology*, *2014*, 878249. https://doi.org/10.1155/2014/878249

Mihailović, D. T., Udovičić, V., Krmar, M., & Arsenić, I. (2014). A complexity measure based method for studying the dependance of ^{222}Rn concentration time series on indoor air temperature and humidity. *Applied Radiation and Isotopes*, *84*, 27–32. https://doi.org/10.1016/j.apradiso.2013.10.016

Mihailović, D. T., Nikolić-Đorić, E., Drešković, N., & Mimić, G. (2014). Complexity analysis of the turbulent environmental fluid flow time series. *Physica. A*, *395*, 96–104. https://doi.org/10.1016/j.physa.2013.09.062

Lalić, B., Eitzinger, J., Mihailović, D. T., Thaler, S., & Jančić, M. (2013). Climate change impacts on winter wheat yield change – which climatic parameters are crucial in Pannonian lowland?" *Journal of Agricultural Science*, *151*(6), 757–774. https://doi.org/10.1017/s0021859612000640

Mihailović, D. T., Malinović-Milićević, S., Arsenić, I., Drešković, N., & Bukosa, B. (2013). Kolmogorov complexity spectrum for use in analysis of UV-B radiation time series. *Modern Physics Letters B*, *27*(27), 1350194. https://doi.org/10.1142/s0217984913501947

Mimić, G., Mihailović, D. T., & Budinčević, M. (2013). Chaos in computing the environmental interface temperature: Nonlinear dynamic and complexity analysis of solutions. *Modern Physics Letters B*, *27*(26), 1350190. https://doi.org/10.1142/s021798491350190x

Lalić, B., Firanj, A., Mihailović, D. T., & Podraščanin, Z. (2013). Parameterization of PAR vertical profile within horizontally uniform forest canopies for use in environmental modeling. *JGR Atmospheres*, *118*(15), 8156–8165. https://doi.org/10.1002/jgrd.50626

Malinović-Milićević, S., Mihailović, D. T., Lalić, B., & Drešković, N. (2013). Thermal environment and UV-B radiation indices in the Vojvodina region, Serbia. *Climate Research*, *57*(2), 111–121. https://doi.org/10.3354/cr01163

Podraščanin, Z., & Mihailović, D.T. (2013). Performance of the asymmetric convective model version 2, in the unified EMEP model. *Időjárás*, *117*(3), 277–314.

Mijatović, Z., Kobilarov, R., Vujičić, B. T., & Mihailović, D. T. (2013). Monitoring of sun's UV radiation and stratospheric ozone layer thickness over the region of Novi Sad (Serbia). *Journal of Economic Development, Environment, & People*, *2*(2). https://doi.org/10.26458/jedep.v2i2.19

Mihailović, D. T., Balaž, I., & Arsenić, I. (2013). A numerical study of synchronization in the process of biochemical substance exchange in a diffusively coupled ring of cells. *Central European Journal of Physics*, *11*(4), 440–447. https://doi.org/10.2478/s11534-013-0221-5

Mihailović, D. T., & Mimić, G. (2012). Kolmogorov complexity and chaotic phenomenon in computing the environmental interface temperature. *Modern Physics Letters B*, *26*(27), 1250175. https://doi.org/10.1142/s0217984912501758

Mihailović, D. T., Budinčević, M., Balaž, I., Crvenković, S., & Arsenić, I. (2012). Coupled maps serving the exchange processes on the environmental interfaces regarded as complex systems.
Natural Science, *4*(8), 569–580. https://doi.org/10.4236/ns.2012.48076

Mihailović, D. T., & Balaž, I. (2012). Forming the functional time in process of biochemical substance exchange between cells in a multicellular system. *Modern Physics Letters B*, *26*(16), 1250099. https://doi.org/10.1142/s0217984912500996

Mihailović, D. T., Kapor, D., Ćirišan, A., & Firanj, A. (2012). Parameterization of the albedo over the heterogeneous surfaces for different geometries in a land surface scheme by the Monte Carlo Ray-tracing method. *Atmospheric Research*, *107*, 51–68.
https://doi.org/10.1016/j.atmosres.2011.12.009

Mihailović, D. T., & Balaž, I. (2012). Synchronization in biochemical substance exchange between two cells. *Modern Physics Letters B*, *26*(5), 1150031.
https://doi.org/10.1142/s021798491150031x

Mihailović, D. T., Budinčević, M., Perišić, D., & Balaž, I. (2012). Maps serving the combined coupling for use in environmental models and their behaviour in the presence of dynamical noise. *Chaos, Solitons & Fractals*, *45*(2), 156–165. https://doi.org/10.1016/j.chaos.2011.11.005

Mihailović, D. T., Lalić, B., Lesny, J., & Olejnik, J. (2012). Modeling surface fluxes over a sparse vegetation. *Archives of Biological Sciences*, *64*(4), 1533–1542.
https://doi.org/10.2298/ABS1204533M

Mihailović, D. T., Budinčević, M., Balaž, I., & Mihailović, A. (2011). Stability of intercellular exchange of biochemical substances affected by variability of environmental parameters. *Modern Physics Letters B*, *25*(32), 2407–2417. https://doi.org/10.1142/s0217984911027431

Arsenić, I., Mihailović, D. T., & Kapor, D. (2011). An advection scheme based on the combination of particle mesh method and pure Lagrangian approach. *Asia-Pacific Journal of Atmospheric Sciences*, *47*(5), 429–438. https://doi.org/10.1007/s13143-011-0028-5

Malinović-Milićević, S., &Mihailović, D. T. (2011). The use of NEOPLANTA model for evaluating the UV index in the Vojvodina region (Serbia). *Atmospheric Research*, *101*(3), 621–630. https://doi.org/10.1016/j.atmosres.2011.04.008

Mihailović, D. T., Budinčević, M., Kapor, D., Balaž, I., & Perišić, D. (2011). A numerical study of coupled maps representing energy exchange processes between two environmental interfaces regarded as biophysical complex systems. *Natural Science*, *3*(1), 75–84.
https://doi.org/10.4236/ns.2011.31011

Balaž, I., & Mihailović, D. T. (2011). A model representing biochemical substances exchange between cells. Part I: Model formalization. *Journal of Applied Functional Analysis, 6*(1), 70–76.

Balaž, I., &Mihailović, D. T. (2011). A model representing biochemical substances exchange between cells. Part II: Effect of fluctuations of environmental parameters to behavior of the model. *Journal of Applied Functional Analysis*, *6*(1), 77–84.

Mihailović, D. T., Lazić, J., Leśny, J., Olejnik, J., Lalić, B., Kapor, D., & Ćirišan, A. (2010). A new design of the LAPS land surface scheme for use over and through heterogeneous and non-heterogeneous surfaces: Numerical simulations and tests. *Theoretical and Applied Climatology*, *100*(3–4), 299–323. https://doi.org/10.1007/s00704-009-0184-z

Balaž, I., &Mihailović, D. T. (2010). Modeling the intercellular exchange of signaling molecules depending on intra- and inter-cellular environmental parameters. *Archives of Biological Sciences*, *62*(4), 947–956. https://doi.org/10.2298/ABS1004947B

Krmar, M., Radnović, D., Mihailović, D. T., Lalić, B., Slivka, J., & Bikit, I. (2009). Temporal variations of ^{7}Be, ^{210}Pb and ^{137}Cs in moss samples over 14-month period. *Applied Radiation and Isotopes*, *67*(6), 1139–1147. https://doi.org/10.1016/j.apradiso.2009.01.001

Eitzinger, J., Thaler, S., Orlandini, S., Nejedlik, P., Kazandjiev, V., Sivertsen, T., & Mihailović D. T. (2009). Applications of agroclimatic indices and process-oriented crop simulation models in European agriculture. *Időjárás*, *113*(1–2), 1–12.

Mihailović, D. T., & Lalić, B. (2009). Coupled land-air parameterization scheme (LAPS) and non-hydrostatic mesoscale model (NMM) for use in agricultural planning. *Időjárás*, *113*(1–2), 13–22.

Mihailović, D. T., Alapaty, K., & Podraščanin, Z. (2009). Chemical transport models: The combined non-local diffusion and mixing schemes, & calculation of in-canopy resistance for dry deposition fluxes. *Environmental Science and Pollution Research*, *16*(2), 144–151. https://doi.org/10.1007/s11356-008-0086-0

Mihailović, D. T., Alapaty, K., & Sakradzija, M. (2008). Development of a nonlocal convective mixing scheme with varying upward mixing rates for use in air quality and chemical transport models. *Environmental Science and Pollution Research*, *15*(4), 296–302. https://doi.org/10.1007/s11356-008-0002-7

Mihailović, D. T, & Alapaty, K. (2007). Intercomparison of two K-schemes: Local versus non-local in calculating concentrations of pollutants in chemical and air-quality models. *Environmental Modelling & Software*, *22*(11), 1685–1689. https://doi.org/10.1016/j.envsoft.2007.03.002

Lalić, B., Mihailović, D. T., Radovanović, S., Balaž, J., & Ćirišan, A. (2007). Input data representativeness problem in plant disease forecasting models. *Időjárás*, 111(2–3), 199–208.

Mihailović, D. T., & Eitzinger, J. (2007). Modelling temperatures of crop environment. *Ecological Modelling*, *202*(3–4), 465–475. https://doi.org/10.1016/j.ecolmodel.2006.11.009

Mihailović, D. T., & Balaž, I. (2007). An essay about modeling problems of complex systems in environmental fluid mechanics. *Időjárás*, *111*(2–3), 209–220.

Malinović, S., Mihailović, D. T., Kapor, D., Mijatović, Z., & Arsenić, I. (2006). NEOPLANTA: A short description of the first Serbian UV index model. *Journal of Applied Meteorology and Climatology*, *45*(8), 1171–1177. https://doi.org/10.1175/jam2400.1

Alapaty, K., & Mihailović, D. T. (2006). An intercomparison study of two land surface models using a 1-D model and fife measurements. *International Journal of Climatology*, *26*(7), 915–934. https://doi.org/10.1002/joc.1266

Mihailović, D. T., Lalić, B., Eitzinger, J., Malinović, S., & Arsenić, I. (2006). An approach for calculation of turbulent transfer coefficient for momentum inside vegetation canopies. *Journal of Applied Meteorology and Climatology*, *45*(2), 348–356. https://doi.org/10.1175/jam2318.1

Mihailović, D. T., Rao, S. T., Alapaty, K., Ku, J., Arsenić, I., & Lalić, B. (2005). A study on the effects of subgrid-scale representation of land use on the boundary layer evolution using a 1-D model. *Environmental Modelling & Software*, *20*(6), 705–714. https://doi.org/10.1016/j.envsoft.2004.04.004

Mihailović, D. T., Alapaty, K., Lalić, B., Arsenić, I., Rajković, B., & Malinović, S. (2004). Turbulent transfer coefficient and calculation of air temperature inside the tall grass canopies in coupled land-atmosphere scheme for environmental modelling. *Journal of Applied Meteorology*, *43*(10), 1498–1514. https://doi.org/10.1175/JAM2139.1

Lalić, B., &Mihailović, D. T. (2004). An empirical relation describing leaf-area density inside the forest for environmental modeling. *Journal of Applied Meteorology*, *43*(4), 641–645. https://doi.org/10.1175/1520-0450(2004)043

Mihailović, D. T., Kapor, D., Hogrefe, C., Lazić, J., & Tosić, T. (2004). Parameterization of albedo over heterogeneous surfaces in coupled land-atmosphere schemes for environmental modeling. Part I: Theoretical background. *Environmental Fluid Mechanics*, *4*(1), 57–77. https://doi.org/10.1023/a:1025514026772

Mihailović, D. T., Rao, S. T., Hogrefe, C., & Clark, R. D. (2002). An approach for the aggregation of aerodynamic surface parameters in calculating the turbulent fluxes over heterogeneous surfaces in atmospheric models. Environmental *Fluid Mechanics*, *2*(4), 315–337. https://doi.org/10.1023/a:1020487528913

Lalić, B., Mihailović, D. T., Rajković, B., Arsenić, I., & Radlović, D. (2003). Wind profile within the forest canopy and in the transition layer above it. *Environmental Modelling & Software*, *18*(10), 943–950. https://doi.org/10.1016/s1364-8152(03)00068-9

Mihailović, D. T., Lalić, B., Arsenić, I., Eitzinger, J., & Dušanić, N. (2002). Simulation of air temperature inside the canopy by the LAPS surface scheme. *Ecological Modelling*, *147*(3), 199–207. https://doi.org/10.1016/s0304-3800(01)00422-7

Mihailović, D. T., Koči, I., Lalić, B., Arsenić, I., Radlović, D., & Balaž, J. (2001). The main features of BAHUS — biometeorological system for messages on the occurrence of diseases in fruits and vines. *Environmental Modelling & Software*, *16*(8), 691–696. https://doi.org/10.1016/s1364-8152(01)00032-9

Mihailović, D. T., Lee, T. J., Pielke, R. A., Lalić, B., Arsenić, I., Rajković, B., & Vidale, P. L. (2000). Comparison of different boundary layer surface schemes using single point micrometeorological field data. *Theoretical and Applied Climatology*, *67*(3), 135–151. https://doi.org/10.1007/s007040070003

Arsenić, I., Mihailović, D. T., Kapor, D., Kallos, G., Lalić, B., & Papadopoulos, A. (2000). Calculating the surface temperature of the solid underlying surface by modified 'Force-Restore' method. *Theoretical and Applied Climatology*, *67*(1–2), 109–113. https://doi.org/10.1007/s007040070019

Mihailović, D. T., Lalić, B., Rajković, B., & Arsenić, I. (1999). A roughness sublayer wind profile above a non-uniform surface. *Boundary-layer Meteorology*, *93*(3), 425–451. https://doi.org/10.1023/a:1002063405979

Mihailović, D. T., Kallos, G., Lalić, B., Papadopoulos, A., & Arsenić, I. (1999). Parameterization of hydrological processes for application to regional and mesoscale modeling. *Global Atmosphere and Ocean System*, *9*(6), 73–89.

Mihailović, D. T., Kallos, G., Arsenić, I., Lalić, B., Rajković, B., & Papadopoulos, A. (1999). Sensitivity of soil surface temperature in a force-restore equation to heat fluxes and deep soil temperature. *International Journal of Climatology*, *19*(14), 1617–1632. https://doi.org/10.1002/(SICI)1097-0088(19991130)19:14<1617: AID-JOC448>3.0.CO;2-B

Mihailović, D. T., Rajković, B., Lalić, B., Jović, D., & Dekić, Lj. (1998). Partitioning the land surface water simulated by a land–air surface scheme. *Journal of Hydrology*, *211*(1–4), 17–33. https://doi.org/10.1016/s0022-1694(98)00190-5

Mihailović, D. T., & Kallos, G. (1997). A sensitivity study of a coupled soil-vegetation boundary-layer scheme for use in atmospheric modeling. *Boundary-layer Meteorology*, *82*(2), 283–315. https://doi.org/10.1023/a:1000169412287

Mihailović, D. T. (1996). Description of a land-air parameterization scheme (LAPS). *Global and Planetary Change*, *13*(1–4), 207–215. https://doi.org/10.1016/0921-8181(95)00048-8

Mihailović, D. T., Rajković, B., Lalić, B., Jović, D., & Arsenić, I. (1996). The main features of the hydrological module in the land air parameterization scheme (LAPS). *Physics and Chemistry of the Earth*, *21*(3), 201–204. https://doi.org/10.1016/s0079-1946(97)85585-1

Mihailović, D. T., & Ruml, M. (1996). Design of land-air parameterization scheme (LAPS) for modelling boundary layer surface processes. *Meteorology and Atmospheric Physics*, *58*(1–4), 65–81. https://doi.org/10.1007/bf01027557

Mihailović, D. T., Rajković, B., Lalić, B., & Dekić, Lj. (1995). Schemes for parameterizing evaporation from a non-plant-covered surface and their impact on partitioning the surface energy in land-air exchange parameterization. *Journal of Applied Meteorology*, *34*(11), 2462–2475. https://doi.org/10.1175/1520-0450(1995)034

Mihailović, D. T., Rajković, B., Dekić, Lj., Pielke, R. A., Lee, T. J., & Zhuojia, Y. (1995). The validation of various schemes for parameterizing evaporation from bare soil for use in meteorological models: A numerical study using in situ data. *Boundary-layer Meteorology*, *76*(3), 259–289. https://doi.org/10.1007/bf00709354

Dekić, Lj., Mihailović, D. T., & Rajković, B. (1995). A study of the sensitivity of bare soil evaporation schemes to soil surface wetness, using the coupled soil moisture and surface temperature prediction model, BARESOIL. *Meteorology and Atmospheric Physics*, *55*(1–2), 101–112. https://doi.org/10.1007/bf01029605

Mihailović, D. T., & Rajković, B. (1994). Impact of differently designed bare soil evaporation schemes on variability of Bowen ratio and ground temperature in land-air parameterization modeling. *Meteorologische Zeitschrift*, *3*(6), 312–318. https://doi.org/10.1127/metz/3/1994/312

Mihailović, D. T, & M. Jeftić. (1994). An efficient but simple biophysical scheme UNICOS for use in different scale atmospheric models. *Environmental Software*, *9*(1), 47–60. https://doi.org/10.1016/0266-9838(94)90014-0

Mihailović, D. T., & Rajković, B. (1993). Surface vegetation parameterization in atmospheric models: A numerical study. *Meteorologische Zeitschrift*, *2*(5), 239–243. https://doi.org/10.1127/metz/2/1993/239

Mihailović, D. T., Pielke, R. A., Rajković, B., Lee, T. J., & Jeftić, M. (1993). A resistance representation of schemes for evaporation from bare and partly plant-covered surfaces for use in atmospheric models. *Journal of Applied Meteorology*, *32*(6), 1038–1054. https://doi.org/10.1175/1520-0450(1993)032

Mihailovic, D. T., De Bruin, H. a. R., Jeftic, M., & Van Dijken, A. (1992). A study of the sensitivity of land surface parameterizations to the inclusion of different fractional covers and soil textures. *Journal of Applied Meteorology*, *31*(12), 1477–1487. https://doi.org/10.1175/1520-0450(1992)031<1477:ASOTSO>2.0.CO;2

Mihailović, D. T. (1992). Vegetation canopy aerodynamic characteristics calculation: A simplification of existing methods. *International Agrophysics*, *6*(3–4), 179–183.

Ács, F., Mihailović, D. T., & Rajković, B. (1991). A coupled soil moisture and surface temperature prediction model. *Journal of Applied Meteorology*, *30*(6), 812–822. https://doi.org/10.1175/1520-0450(1991)030

Mihailović, D. T. (1991). A model for the prediction of the temperature and soil moisture content in three layers. *Meteorologische Zeitschrift*, *41*, 29–33.

Mihailović, D. T. (1990). Soil temperature and three-layer soil moisture content prediction model. *Rivista di Meteorologia Aeronautica*, *1*(2), 29–38.

Mihailović, D. T. (1989). Some consideration of outflow boundary conditions in limited area models. *Meteorologische Zeitschrift*, *39*, 157–161.

Mihailović, D. T., & Janjić. Z. (1986). Comparison of methods for reducing the error of the pressure gradient force in sigma coordinate models. *Meteorology and Atmospheric Physics*, 35(3), 177–184. https://doi.org/10.1007/bf01026173

Mihailović, D. T. (1986). Pressure gradient force and calculation initial temperature in terrain-following coordinate models. *Meteorology and Atmospheric Physics*, *35*(1–2), 53–58. https://doi.org/10.1007/bf01029523

Mihailović, D. T., & Ács, F. (1985). Calculation of daily amount of global radiation in Novi Sad. (in Hungarian), *Időjárás*, *89*(5), 257–268.

Mihailović, D. T., & Ács, F. (1984). A contribution to the relation between global radiation and sunshine duration or cloudiness. *Időjárás*, *88*(3), 121–184.

Ács, F., & Mihailović, D. T. (1983). Calculation of soil thermal changes. *Időjárás*, 87(4), 200–205.

Ács, F., & Mihailović, D. T. (1982). Harmonic analysis of the annual variation of sunshine duration. (in Hungarian), *Időjárás*, *86*(6), 325–388.

Mihailović, D. T. (1981). Calculation of initial temperature from interpolated pressure gradient force in sigma coordinate models. *Archives for Meteorology, Geophysics, & Bioclimatology, Series A*, *30*(3), 239–251. https://doi.org/10.1007/bf02257846

Mihailović, D. T. (1979). A contribution to the critical control of the geopotential data and temperature data for objective analysis. (in Hungarian), *Időjárás*, *83*(3), 145–148.

International conferences

Mihailović, D. T., & Kapor, D. (2019, March 11–13). *Stability of synchronization in the process of biochemical substance exchange in a diffusively coupled ring-like arrangement of cells in plants* [Conference presentation]. 3rd Global Congress on Plant Biology and Biotechnology, Singapore.

Gualtieri, C., Mihailović, D. T., Kapor, D., Crvenković, S., & Arsenić, I. (2018). Models and modeling in the environmental sciences: Between epistemology and practice. In *Proceedings of the 9th International Congress on Environmental Modelling and Software*. International Environmental Modelling and Software Society. https://scholarsarchive.byu.edu/iemssconference/, 2018/Stream-D/17/

Petrić, D., Mihailović, D. T., Đurđević, V., Petrović, T., Mimić, G., Nikolić Đorić, E., Zgomba, M., Ignjatović Ćupina, A., & Petrić, M. (2017, October 1–7). *Could microclimate influence WNV circulation and whether native mosquito might become invasive?* [Conference presentation abstract]. 7th International Congress of the Society for Vector Ecology, Palma de Mallorca, Spain.

Mihailović, D. T. (2017, September 18–19). Kolmogorov complexity-based measures applied to the analysis of different river flow regimes [Conference presentation]. 6th International Conference on Earth Science & Climate Change, Macau, Hong Kong.

Mimić, G., Mihailović, D. T., & Arsenić, I. (2017, February 27–March 2). *Is the farmer population in Vojvodina region (Serbia) threatened by skin cancer due to climate change* [Conference presentation abstract]. 6th International Symposium on Agricultural Sciences "AgroRes 2017". Banja Luka, Bosnia and Herzegovina.

Mihailović, D. T., Mimić, G., Gualtieri, P., Arsenić, I., & Gualtieri, C. (2016). Randomness representation in turbulent flows with bed roughness elements using the spectrum of the Kolmogorov complexity. In S. Sauvage, J.-M. Sánchez- Pérez, & A. Rizzoli (Eds.), *Proceedings of the 8th International Congress on Environmental Modelling and Software*. International Environmental Modelling and Software Society. https://scholarsarchive.byu.edu/iemssconference/, 2016/Stream-A/73/

Mimić, G., Arsenić, I., & Mihailović, D. T. (2016). Number of patterns in Lempel-Ziv algorithm applied to iterative maps and measured time series. In S. Sauvage, J.-M. Sánchez-Pérez, & A. Rizzoli (Eds.), *Proceedings of the 8th International Congress on Environmental Modelling and Software*. International Environmental Modelling and Software Society. https://scholarsarchive.byu.edu/iemssconference/, 2016/Stream-A/63/

Ćirić, V., Mihailović, D. T., Arsenić, I., Drešković, N., Đurđević, V., Mimić, G., & Balaž, I. (2016, March 29 – April 1). *Which is the response of soils in the Vojvodina region (Serbia) to climate change using regional climate simulations under the SRES-A1B?* [Conference presentation abstract]. Austin International Conference on Soil Modeling, Austin, Texas.

Mihailović, D. T., Mimić, G. (2016, February 29–March 3). Climate change effects on crop yields in Serbia under the A1B and A2 scenarios [Conference presentation abstract]. 5th International Symposium on Agricultural Sciences "AgroRes 2016", Banja Luka, Bosnia and Herzegovina.

Gualtieri, C., & Mihailović, D. T. (2014). Environmental fluid mechanics at iEMSs conferences (2002–2014). (2014). In D. P. Ames, N. W. T. Quinn, & A. E. Rizzoli (Eds.), *Proceedings of the 7th International Congress on Environmental Modelling and Software*. International Environmental Modelling and Software Society. https://scholarsarchive.byu.edu/iemssconference/, 2014/Stream-H/76/

Mihailović, D. T., Mimić, G., & Arsenić, I. (2014). Climate models beyond the complexity: Occurrence of the chaos and complexity in climate models. In D. P. Ames, N. W. T. Quinn, & A. E. Rizzoli (Eds.), *Proceedings of the 7th International Congress on Environmental Modelling and Software*. International Environmental Modelling and Software Society.

Krmar, M., Mihailović, D. T., Udovičić, V., & Arsenić., I. (2013). Indoor ^{222}Rn time series analyzed by the stochastic complexity method. In *Proceedings of VII Radon Forum and Radon in Environment, Satellite Workshop* (pp. 115–121).

Jevtić, R., Lalošević, M., Mihailović, D. T., & Lalić, B. (2012, August 28 –September 1). *The impact of climate change on the asexual part of population of Blumeria graminis tritici in Vojvodina region (Serbia)* [Conference presentation abstract]. 13th International Cereal Rusts and Powdery Mildews Conference, Beijing, China.

Mihailović, D. T., & Balaž, I. (2012). An essay about the functional time of environmental interfaces regarded as complex biophysical systems. In R. Seppelt, A. A. Voinov, S. Lange, & D. Bankamp (Eds.), *Proceedings of the 6th International Congress on Environmental Modelling and Software*. International Environmental Modelling and Software Society. https://scholarsarchive.byu.edu/iemssconference/, 2012/Stream-B/307/

Mihailović, D. T. (2011). Climate change and heritage. What exists in civilization thesaurus of the Danubian region? In B. Šiška, M. Hauptvogl, & M. Eliašová (Eds.),
Bioclimate: Source and Limit of Social Development (pp. 8–9). Nitra Slovak Agricultural University.

Balaž, I., & Mihailović, D. T. (2011). Observer based emergence of local endo-time in living systems: Theoretical and mathematical reasoning. In G. Kampis, I. Karsai,

& E. Szathmár (Eds.), *Advances in Artificial Life: 10th European Conference, ECAL 2009* (pp. 222– 229). Springer Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-21314-4_28

Mihailović, D. T. (2011, May 3–6). *Climate change: Whether we might have an intermezzo before next step?* [Conference presentation]. International Conference on Current Knowledge of Climate Change Impacts on Agriculture and Forestry in Europe, Topolčianky, Slovakia.

Lalić, B., Eitzinger, J., Mihailović, D. T., Thaler, S., Nejedlik, P., Kazandjiev, V., Vučetić, V., Jaćimović, G., Latković, D., Saylan, L., Cladag, B., Susnik, A., Eckersten, H. (2011, May 3–6). *Using results of modelled yield deviation and indices of weather extremes towards a better yield assessment – current state of research* [Conference presentation]. International Conference on Current Knowledge of Climate Change Impacts on Agriculture and Forestry in Europe, Topolčianky, Slovakia.

Mihailović, D. T. (2010, September 13–15). *An overview of environmental models of different temporal and spatial scales: Theoretical background and their applications* [Conference presentation]. GREENFLUX International Conference and ICOS-PL Meeting, Poznan, Poland.

Balaž, I., & Mihailović, D. T. (2010). Algebraic representation and modeling of evolutionary innovation and adaptation in biological systems. In H. Fellermann, M. Dorr, M. Hanczyc, L. Ladegaard Laursen, S. Maurer, D. Merkle, P.- A. Monnard, K. Stpy, & S. Rasmussen (Eds.), *Artificial life XII: Proceedings of the Twelfth International Conference on the Synthesis and Simulation of Living Systems* (pp. 359–366). MIT Press.

Mihailović, D. T., Budinčević, M., Perišić, D., Balaž, I., & Firanj, A. (2010). Interacting environmental interfaces: Synchronization in substance exchange between environmental interfaces regarded as biophysical complex systems. In D. A. Swayne, W. Yang, A. A. Voinov, A. Rizzoli, & T. Filatova (Eds.), *Proceedings of the 5th International Congress on Environmental Modelling and Software*. International Environmental Modelling and Software Society. https://scholarsarchive.byu.edu/iemssconference/, 2010/all/261/

Mihailović, D. T. (2010). Climate modeling beyond the complexity: Challenges in model- building. In V. Alexandrov, M. F. Gajdusek, C. G. Knight, & A. Yotova (Eds.), *Global Environmental Change: Challenges to Science and Society in Southeastern Europe* (pp. 53– 63). Springer, Dordrecht. https://doi.org/10.1007/978-90-481-8695-2_5

Eitzinger, J., Thaler, S., Kubu, G., Alexandrov, V., Utset, Á., Mihailović, D. T., Lalić, B., Trnka, M., Auld, Z., Semerádová, D., Ventrella, D., Anastasiou, D. P., Medany, M., Altaher, S., Olejnik, J., Leśny, J., Nemeshko, N., Nikolaev, M., Simota, C., &

Cojocaru, G. (2010). Vulnerabilities and adaptation options of European agriculture. In V. Alexandrov, M. F. Gajdusek, C. G. Knight, & A. Yotova (Eds.), *Global Environmental Change: Challenges to Science and Society in Southeastern Europe* (pp. 139–160). Springer, Dordrecht. https://doi.org/10.1007/978-90-481-8695-2_12

Balaž, I., & Mihailović, D. T. (2010, May 21–24). *A model representing biochemical substances exchange between cells. Part I: Model formalization* [Conference presentation abstract]. 3rd International Interdisciplinary Chaos Symposium on Chaos and Complex Systems, Istanbul, Turkey.

Mihailović, D. T., & Balaž, I. (2010, May 21–24). *A model representing biochemical substances exchange between cells. Part II: Effect of fluctuations of environment parameters to behavior of the model* [Conference presentation abstract]. 3rd International Interdisciplinary Chaos Symposium on Chaos and Complex Systems, Istanbul, Turkey.

Mihailović, D. T., & Balaž, I. (2009). Modelling energy and substance exchanges between interacting environmental interfaces regarded as complex systems. In *XXII International Symposium on Information, Communication and Automation Technologies* (pp. 1–7). IEEE. https://doi.org/10.1109/ICAT.2009.5348403

Eitzinger, J., Kubu, G., Alexandrov, V., Utset, Á., Mihailović, D. T., Lalić, B., Trnka, M., Žalud, Z., Semerádová, D., Ventrella, D., Anastasiou, D. P., Medany, M., Altaher, S., Olejnik, J., Leśny, J., Nemeshko, N., Nikolaev, M., Simota, C., & Cojocaru, G. (2009). Adaptation of vulnerable regional agricultural systems in Europe to climate change—results from the ADAGIO project. *Advances in Science and Research*, *3*(1), 133–135. https://doi.org/10.5194/asr-3-133-2009

Mihailović, D. T., & Firanj, A. (2009, October 5–8). *Interacting environmental interfaces: Source of uncertainties in calculating the surface temperature in land-surface schemes for use over urban areas* [Conference presentation abstract]. Sustainable Development and Bioclimate, Stará Lesná, Slovakia.

Lalić, B., & Mihailović, D. T. (2009, September 28–October 2). *Assessment of climate change impact on phenology dynamic in Vojvodina region* [Conference presentation abstract]. 9th EMS Annual Meeting, Toulouse, France.

Lalić, B., & Mihailović, D. T. (2009, September 28–October 2). *Parameterisation of pollution diffusion in presence of forest canopy* [Conference presentation abstract]. 9th EMS Annual Meeting, Toulouse, France.

Lalić, B., Mihailović, D. T., Eitzinger, J., Jaćimović, G., & Živanović, O. (2009). Assessment of possible relation between trends in agroclimatic indices and crop model outputs. *BOKU- Met Report* (17), 70–71.

Mihailović, D. T., Lalić, B., Jevtić, R., Keserović, Z., Petrović, Ž., & Jasnić, S. (2009). Climate change impacts and adaptation options in Serbia – results from the ADAGIO project. *BOKU-Met Report* (17), 78–80.

Firanj, A., Lalić, B., & Mihailović, D. T. (2009). Calibration and validation of DSSAT model for Serbian agroecological conditions. *BOKU-Met Report* (17), 118–120.

Jevtić, R., Lalić, B., Mihailović, D. T., Eitzinger, J., Alexandrov, V., Ventrella, D., Trnka, M., Anastasiou, D. M., Medany, M., Olejnik, J., & Nikolaev, M. (2009). Adaptation to diseases, pests and weeds caused by climatic changes and evaluation of associated risks in European Regions—results from the ADAGIO project. *BOKU-Met Report* (17), 121–123.

Bordás, Á., Mihailović, D. T., & Weidinger, T. (2009, April 19–24). *Comparison of single- column vertical mixing schemes designed for the convective boundary layer* [Conference presentation abstract]. EGU General Assembly 2009, Vienna, Austria.

Mihailović, D. T. (2008). Ecological modelling: Challenges at a crossroads. In D. T. Mihailović, & M. Vojinović Miloradov (Eds.), *Environmental, health and humanity issues in the down Danubian region: Proceedings of the 9th International Symposium on Interdisciplinary Regional Research* (pp. 181–188). World Scientific. https://doi.org/10.1142/9789812834409_0020

Crvenković, S., Mihailović, D. T., & Balaž, I. (2008). Use of formal concept analysis for construction of subjective interface between biological systems and their environment. In D. T. Mihailović, & M. Vojinović Miloradov (Eds.), *Environmental, health and humanity issues in the down Danubian region: Proceedings of the 9th International Symposium on Interdisciplinary Regional Research* (pp.189–199). World Scientific. https://doi.org/10.1142/9789812834409_0021

Lalić, B., Mihailović, D. T., & Malešević, M. (2008). Estimating winter wheat yield and phenology dynamics using met and roll weather generator. In D. T. Mihailović, & M. Vojinović Miloradov (Eds.), *Environmental, health and humanity issues in the down Danubian region: Proceedings of the 9th International Symposium on Interdisciplinary Regional Research* (pp. 233–244). World Scientific. https://doi.org/10.1142/9789812834409_0025

Lalić, B., Mihailović, D. T., Jevtić, R., & Jasnić, S. (2008, September 28– October 3). *Assessment of climate change impact on plant disease and pest occurrence in Vojvodina region* [Conference presentation abstract]. 8th EMS Annual Meeting, Amsterdam, The Netherlands.

Mihailović, D. T., Courault, D., Ruget, F., Lalić, B., Olioso, A., & Arsenić, I. (2008). Coupling crop (STICS)—SVAT (LAPS) models to improve the representation of

crop processes and land-atmosphere interactions. In *Proceedings of the International Eco-Conference 2008* (pp. 41–49). Ecological Movement of Novi Sad.

Balaž, I., & Mihailović, D. T. (2008). Evolvable biological interfaces: An outline of the new computing system. (2008). In M. Sainte-Maure, J. Béjar, J. Comas, A. E. Rizzoli, & G. Guariso (Eds.), *Proceedings of the 4th International Congress on Environmental Modelling and Software* (pp. 104–113). International Environmental Modelling and Software Society. https://scholarsarchive.byu.edu/iemssconference/, 2008/all/132/

Kapor, D., Ćirišan, A., & Mihailović, D. T. (2008). The impact of geometrical effects on calculated value of albedo on the heterogeneous environmental interfaces. In M. Sànchez- Marrè, J. Béjar, J. Comas, A. E. Rizzoli, & G. Guariso (Eds.), *Proceedings of the 4th International Congress on Environmental Modelling and Software* (pp. 114–121). International Environmental Modelling and Software Society. https://scholarsarchive.byu.edu/iemssconference/, 2008/all/79/

Mihailović, D. T. (2008). Two interacting environmental interfaces: Bifurcation in coupled asymmetric logistic maps. In M. Sànchez-Marrè, J. Béjar, J. Comas, A. E. Rizzoli, & G. Guariso (Eds.), *Proceedings of the 4th International Congress on Environmental Modelling and Software* (pp. 134–140). International Environmental Modelling and Software Society. https://scholarsarchive.byu.edu/iemssconference/, 2008/all/65/

Eitzinger, J., Thaler, S., Orlandini, S., Nejedlik, P., Kazandjiev, V., Sivertsen, T. H., & Mihailović, D. T. (2008, June 3–6). *Applications of agroclimatic indices and process oriented simulation models in European agriculture* [Conference presentation abstract]. Symposium on Climate Change and Variability—Agro Meteorological Monitoring and Coping Strategies for Agriculture, Oscarsborg, Norway.

Mihailović, D. T., & Lalić, B. (2008, June 3–6). *NCEP non-hydrostatic regional model and surface scheme LAPS: A dynamic scaling tool for use in agricultural models* [Conference presentation abstract]. Symposium on Climate Change and Variability—Agro Meteorological Monitoring and Coping Strategies for Agriculture, Oscarsborg, Norway.

Lalić, B., Dubrovsky, M., & Mihailović, D. T. (2007, October 1–5). *Calculation of agrometeorological indices using different GCM scenarios* [Conference presentation abstract]. 7th EMS Annual Meeting, San Lorenzo de El Escorial, Spain.

Arsenić, I., Mihailović, D. T., & Rajković, B. (2007, October 1–5). *1-D single level primitive equation model with pure Lagrangian (L4E) advection scheme*

[Conference presentation abstract]. 7th EMS Annual Meeting, San Lorenzo de El Escorial, Spain.

Mihailović, D. T. (2007, October 1–5). *Category theory as the language of modelling environmental interfaces—complex biophysical systems* [Conference presentation abstract]. 7th EMS Annual Meeting, San Lorenzo de El Escorial, Spain.

Mihailović, D. T., Balaž, I., & Crvenković, S. (2007, October 1–5). *The use of formal concept analysis in modelling of environmental interface as a complex system* [Conference presentation abstract]. 7th EMS Annual Meeting, San Lorenzo de El Escorial, Spain.

Lalić, B., Panković, L., & Mihailović, D. T. (2006, September 4–8). *Calibration of SIRIUS model for different NS-sorts of small grains* [Conference presentation abstract]. 6th EMS Annual Meeting, Ljubljana, Slovenia.

Mihailović, D. T. (2006). Impact of local and non-local eddy-diffusivity schemes on calculating the concentration of pollutants in environmental models. In A. Voinov, A. J. Jakeman, & A. E. Rizzoli (Eds.), *Proceedings of the 3rd International Congress on Environmental Modelling and Software*. International Environmental Modelling and Software Society. https://scholarsarchive.byu.edu/iemssconference/, 2006/all/33/

Mihailović, D. T., & Lalić, B. (2006, June 6–9). *Land-air parameterisation scheme (LAPS) as a component in agrometeorological modelling* [Conference presentation abstract]. Workshop on Environmental Fluid Mechanics as Elements in Agro Meteorological Modelling, As, Norway.

Panković, L., Lalić, B., & Mihailović, D. T. (2005, September 12–16). *The simulating algorithm on population structures studies of cereal leaf beetle (Lema melanopus L.)* [Conference presentation abstract]. 5th EMS Annual Meeting, Utrecht, The Netherlands.

Lalić, B., Panković, L., & Mihailović, D. T. (2005, September 12–16). *Prediction of malting barley phenology based on air and soil temperature accumulation* [Conference presentation abstract]. 5th EMS Annual Meeting, Utrecht, The Netherlands.

Malinović, S., Mihailović, D. T., Mijatović, Z., Kapor, D., Arsenić, I., & Lalić, B. (2005, September 12–16). *UV index activity at Novi Sad Serbia* [Conference presentation abstract]. 5th EMS Annual Meeting, Utrecht, The Netherlands.

Mihailović, D. T., Lalić, B., & Koči, I. (2005). Agrometeorological modelling: A powerful tool of modern agriculture. *Contemporary Agriculture*, *54*(1–2), 312–317.

Mihailović, D. T., & Nikolić Đorić, E. (2005). Estimating the quantitative parameters of chaos from filtered and non-filtered air temperature time series. *Contemporary Agriculture*, *54*(1–2), 329–334.

Arsenić, I., Mihailović, D. T., & Lalić, B. (2005). An interactive software for climatological characterization of Vojvodina province. *Contemporary Agriculture*, *54*(1–2), 335–339.

Malinović, S., Mihailović, D. T., Lalić, B., & Arsenić, I. (2005). Ultraviolet radiation and its influence on plants. *Contemporary Agriculture*, *54*(1–2), 340–345.

Mihailović, D. T., Lalić, B., & Arsenić, I. (2004). Simulation of air temperature inside the sunflower canopy by the land-air parameterization scheme. In *Proceedings of the 16th International Sunflower Conference*, (pp. 287–292). International Sunflower Association.

Mihailović, D. T., Budinčević, M., & Lalić, B. (2004). An approach for calculating the turbulent transfer coefficient inside the sparse tall vegetation. In C. Pahl-Wostl, S. Schmidt, A. E. Rizzoli, & A. J. Jakeman (Eds.), *Proceedings of the 2nd International Congress on Environmental Modelling and Software* (pp. 1–3). International Environmental Modelling and Software Society. https://scholarsarchive.byu.edu/iemssconference/, 2004/all/1, 20/

Malinović, S., Mihailović, D. T., Mijatović, Z., Kapor, D., & Arsenić, I. (2004). Forecasting UV index by NEOPLANTA model: Methodology and validation. In C. Pahl-Wostl, S. Schmidt, A. E. Rizzoli, & A. J. Jakeman (Eds.), *Proceedings of the 2nd International Congress on Environmental Modelling and Software* (pp. 3–5). International Environmental Modelling and Software Society. https://scholarsarchive.byu.edu/iemssconference/, 2004/all/31/

Lalić, B., Mihailović, D. T., Balaž, J., & Koči, I. (2003, September 15–19). *Prediction of occurrence of plant disease using the coupled atmosphere-land surface model* [Conference presentation abstract]. 3rd EMS Annual Meeting, Rome, Italy.

Malinović, S., Mihailović, D. T., Mijatović, Z., Kapor, D., & Arsenić, I. (2003). Estimating solar ultraviolet irradiance (290-400 nm) by means of the NEOPLANTA model: Model description and validation. In S. Jokić, I. Milošević, A. Balaž, & Z. Nikolić (Eds.), *Proceedings of the 5th General Conference of the Balkan Physical Union*. Serbian Physical Society.

Mihailović, D. T., Lalić, B., Pavkov, M., & Arsenić, I. (2003). Calculating effective temperature on heterogeneous surfaces and its influence on boundary layer evolution in environmental models of different scales. In S. Jokić, I. Milošević, A. Balaž, & Z. Nikolić (Eds.), *Proceedings of the 5th General Conference of the Balkan Physical Union* (p. 281). Serbian Physical Society.

Mihailović, D. T., Lazić, J., Lalić, B., & Arsenić, I. (2002). Aggregation of fluxes and parameters over a grid cell in air pollution: Realizability conditions. In *Proceedings of the 18th International Conference on Carpathian Meteorology* (pp. 79–81).

Lalić, B., & Mihailović, D. T. (2002). New approach to parameterisation of momentum transport within tall vegetation. In *Proceedings of the 18th International Conference on Carpathian Meteorology* (pp. 91–93).

Mihailović, D. T. (2002). Environmental modeling of physical, biophysical and chemical processes in the atmosphere plant-soil-interaction: How nonlinearity affects the solutions? In A. E. Rizzoli, & A. J. Jakeman (Eds.), *Proceedings of the 1st International Congress on Environmental Modelling and Software* (pp. 383–388). International Environmental Modelling and Software Society.

Kapor, D., Mihailović, D. T., Tošić, T., Rao, S. T., & Hogrefe, C. (2002). An aproach for the aggregation of albedo in calculating the radiative fluxes over heterogeneous surfaces in atmospheric models. In A. E. Rizzoli, & A. J. Jakeman (Eds.),
Proceedings of the 1st International Congress on Environmental Modelling and Software (pp. 389–394). International Environmental Modelling and Software Society. https://scholarsarchive.byu.edu/iemssconference/, 2002/all/111/

Lalić, B., & Mihailović, D. T. (2002). A new approach in parameterisation of momentum transport inside and above forest canopy under neutral conditions. In A. E. Rizzoli, & A. J. Jakeman (Eds.), *Proceedings of the 1st International Congress on Environmental Modelling and Software* (pp. 436–441). International Environmental Modelling and Software Society.
https://scholarsarchive.byu.edu/iemssconference/, 2002/all/112/

Lazić, J., Mihailović, D. T., Lalić, B., Arsenić, I., & Hogrefe, C. (2002). Land air surface scheme (LAPS) for use in urban modelling. In A. E. Rizzoli, & A. J. Jakeman (Eds.), *Proceedings of the 1st International Congress on Environmental Modelling and Software* (pp. 448–453). International Environmental Modelling and Software Society. https://scholarsarchive.byu.edu/iemssconference/, 2002/all/62/

Mihailović, D. T., Eitzinger, J., Koči, I., Lalić, B., Arsenić, I., & Radlović, D. (2001). Biometeorological system BAHUS for predicting the occurrence of plant diseases and ensuring their efficient control. In *Proceedings of International Workshop on Environmental Risk Assessment of Pesticides and Integrated Pesticide Management in Developing Countries* (pp. 67–72).

Mihailović, D. T., Rao, S. T., Alapaty, K., & Ku, J. Y. (2001, September 24–25). *A study of the effects of land-use types on the boundary layer evolution* [Conference

presentation abstract]. Scientific Conference on Environmental Monitoring, Evaluation, & Protection, Albany, New York, USA.

Mihailović, D. T., Kapor, D., Lalić, B., & Arsenić, I. (2001, March 20–25). *The chaotic time fluctuations of ground surface temperature resulting from the energy balance equation for the soil surface-atmosphere system* [Conference presentation abstract]. EGS General Assembly 2001, Nice, France.

Mihailović, D. T., Eitzinger, J., Koči, I., Lalić, B., Arsenić, I., Radlović, D., & Mircov., D. V. (2000). Predicting the occurrence of Erwinia amylovora using the biometeorological system BAHUS. In *Proceedings of Annual Meeting of Review Scientific Works of Banatian University of Agricultural Sciences and Veterinary Medicine* (pp. 573–582).

Mihailović, D. T., Lalić, B., Arsenić, I., Mircov, D. V., & Dušanić, N. (1999). Land air parameterization scheme (LAPS) and its use for crop microclimate simulation. In Extended Abstracts, 106.

Mihailović, D. T., Lalić, B., & Arsenić, I. (1999, June 16–19). *Sensitivity of partitioning the land surface water in a land-air scheme to the ground and deep soil temperature and soil water properties* [Conference presentation abstract]. 3rd International Scientific Conference on the Global Energy and Water Cycle, Beijing, China.

Mihailović, D. T., Lalić, B., & Arsenić, I. (1998, August 2–6). *Modelling the surface fluxes over underlying surface representing different vegetation types and soil textural classes and its use for ecological studies and applications* [Conference presentation abstract]. International Conference on Ecological Modelling, Baltimore, Maryland, USA.

Mihailović, D. T., Jović, D., Rajković, B., Kallos, G., Lalić, B., Nicković, S., & Arsenić, I. (1997). The basic features of LAPS land surface scheme for use in Eta numerical weather prediction model. In G. Kallos, V. Kotroni, & K. Lagouvardos (Eds.), *Proceedings of the Symposium on Regional Weather Prediction on Parallel Computer Environments: October 15-17, 1997* (pp. 79–93). University of Athens, Department of Physics, Department of Informatics.

Arsenić, I., Mihailović, D. T., Kallos, G., & Lalić, B. (1997). Calculation of rocky surface temperature in LAPS land surface scheme: Methodology and corresponding
mapping of rocky soils. In G. Kallos, V. Kotroni, & K. Lagouvardos (Eds.), *Proceedings of the Symposium on Regional Weather Prediction on Parallel Computer Environments: October 15-17, 1997* (pp. 99–105).

Mihailović, D. T., Lalić, B., & Arsenić, I. (1997). Treatment of hydrology in a coupled soil- vegetation boundary layer scheme for use in atmospheric models. In B. Diekkrüger, & O. Richter (Eds.), *International Conference on Regionalization in*

Hydrology: Extended abstracts (pp. 173–176). Institute of Geography and Geoecology Braunschweig.

Mihailović, D. T., Lalić, B., & Arsenić, I. (1996, August 19–23). *A parameterization of biophysical processes over plant-covered surfaces for use in ecological models* [Conference presentation abstract]. Ecological Summer Summit 96, Copenhagen, Denmark.

Mihailović, D. T., Lalić, B., & Arsenić, I. (1996, July 23–27). *Specifying the deep soil temperature in force-restore method for calculating the surface temperature in atmospheric models during long term integration* [Conference presentation abstract]. Western Pacific Geophysics Meeting 1996, Brisbane, Australia.

Mihailović, D. T., Lalić, B., & Ruml, M. (1996). The main features of the hydrological module in the land-air parameterisation scheme (LAPS). *Annales Geophysicae*, C347.

Mihailović, D. T., & Lalić, B. (1995). A numerical study of runoff and drainage in soil moisture simulation in a land-atmosphere interface scheme (LAPS). In *Proceedings of Symposium on Clouds Convection and Land Surface Processes* (pp. 377–378).

Mihailović, D. T., & Ruml, M. (1994, November 14–17). *Sensitivity of a soil-plant-atmosphere model to changes in roughness length for bare and plant-covered surfaces* [Conference presentation abstract]. 6th International Conference ENVIROSOFT, San Francisco, California, USA.

Mihailović, D. T. (1993). Biophysical scheme UNICOS and its use in ecological models. *Contemporary Agriculture*, *41*, 173–174.

Mihailović, D. T. (1993). Comparison of schemes for evaporation from bare soil for use in atmospheric models. In *Proceedings of 16th Conference on Carpathian Meteorology* (pp. 194–199).

Mihailović, D. T. (1992, September 7–9). *Modelling the land surface processes* [Conference presentation]. 3rd Conference on the Development and Applications of Computer Techniques to Environmental Studies, Portsmouth, United Kingdom.

Mihailović, D. T., & Jeftić, M. (1992, April 6–10). *Some aspects of land-surface parameterization sensitivity to the inclusion of different soil textures* [Conference presentation abstract]. EGS General Assembly 1992, Edinburgh, United Kingdom.

Mihailović, D. T. (1991, April 22–26). *Testing the biosphere-atmosphere transfer scheme (BATS) using different soil textures and crop densities* [Conference presentation

abstract]. 35th International Conference on Transport and Diffusion in Turbulent Fields, Eilat, Israel.

Mihailović, D. T., Rajković, B., & Ács, F. (1991). A parametrization of evaporation for use in land-surface atmosphere interaction modelling. In *Proceedings of 21th International Conference on Alpine Meteorology* (pp. 302–304).

Mihailović, D. T. (1989). Land-surface atmosphere interaction modeling for use in different meteorological scale processes. In *Proceedings of 14th Conference on Carpathian Meteorology* (pp. 348–353).

Mihailović, D. T. (1989, March 13–17). *An approach in soil surface temperature and soil moisture content with inclusion of a layer of vegetation* [Conference presentation abstract]. EGS General Assembly 1989, Barcelona, Spain.

Mihailović, D. T. (1988). Wind speed and shear stress inside and over canopy for use in GCM (General Circulation Models). In *Proceedings of 20th International Conference on Alpine Meteorology* (pp. 157–166).

Mihailović, D. T., Kovačević, B., & Ács, F. (1987). Analysis of radiation balance over soybean and winter wheat in Novi Sad. In *Proceedings of 13th International Conference on Carpathian Meteorology* (pp. 635–642).

Mihailović, D. T., Kovačević, B., & Ács, F. (1986). Energy balance over soybean canopy. In *Proceedings of 19th International Conference on Alpine Meteorology* (pp. 386– 389).

Mihailović, D. T. (1985). Comparison of Arakawa's schemes for computing sigma pressure gradient force. In *Proceedings of 7th International Symposium Computer Aided Design and Computer Aided Manufacturing* (pp. 353–358).

Mihailović, D. T., Ács, F., & Kovačević, B. (1985). Latent heat flux and global radiation above soybean canopy. In *Papers Compendium of 12th Conference on Carpathian Meteorology* (pp. 220–222).

Mihailović, D. T. (1985). The outflow boundary conditions used for numerical time integration of primitive equations. In D. Herceg (Ed.), *Proceedings of the 2nd Conference on Numerical Methods and Approximation Theory* (pp. 195–200). Institute of Mathematics, University of Novi Sad, Yugoslavia.

Mihailović, D. T. (1984). A possibility for calculating pressure gradient force in sigma coordinate system. In G. V. Milovanović (Ed.), *Proceedings of the 1st Conference on Numerical Methods and Approximation Theory* (pp. 187–192). Faculty of
Electronic Engineering, University of Niš, Yugoslavia.