

Aristeidis (Aris) KOUTROULIS

Associate Professor

School of Chemical and Environmental Engineering
Technical University of Crete, 73100 Chania, Greece
akoutroulis@tuc.gr
+30 282 10 377 64



EDUCATION

- 2011 PhD, School of Environmental Engineering, Technical University of Crete, Greece.
Doctoral Thesis: "Extreme hydrometeorologic phenomena and impact of climatic change. Application in the region of Crete, Greece."
- 2005 MSc School of Environmental Engineering, Technical University of Crete, Greece.
Master Thesis: "Simulation of flash flood events at poorly gauged basins. Application at the Giofiro river basin, Crete."
- 2002 Engineering Diploma, School of Mineral Resources Engineering, Technical University of Crete, Greece. Thesis title: "Development, construction and application of a specialized flow system for simulating efficient cuttings transport in horizontal and deviated Wellbores in Coil Tubing Drilling."

EXPERIENCE - SUMMARY

- 2022-today **Associate Professor** "Applied Hydraulics and Hydrology". Technical University of Crete, School of Chemical and Environmental Engineering.
- 2001-2022 **Research Scientist** involved in European and National research projects (18): SoilCare-H2020, IMPREX - H2020, HELIX - FP7, RECARC - FP7, CASCADE - FP7, IMPACT2C - FP7, ECLISE - FP7, REINFORCE - GSRT, SATFLOOD, COMBINE - FP7, SIMFLOOD - ESA, WATCH - FP6, SCENES - FP6, HYDRATE - FP6, FFF - GSRT, HarmoniRiB - FP5, BEWARE - CRINNO.
- 2014-2022 **Laboratory Teaching Staff**. School of Environmental Engineering, Technical University of Crete. Specific laboratory/applied teaching work conducting laboratory and practical exercises for the courses «Hydrology», «Hydraulic Works», «Fluid Mechanics» and «Hydraulics II».
- 2006-2014 **Research Engineer** at Water Resources Management and Coastal Engineering Laboratory of Technical University of Crete. 2002-2004 Lecturing for the courses: "Computational Hydraulics", "Environmental Hydraulics", "Numerical Methods in Environmental Engineering". School of Environmental Engineering, Technical University of Crete.

STATISTICS – JUNE 2022

Total number of articles published in peer review journals: **59**

Other publications total: **119**

h-index: **28** (Scopus), **32** (Google Scholar)

Times cited: **2575** (Scopus), **3973** (Google Scholar)

ULRs:[[Google Scholar](#)], [[ResearcherID](#)], [[Research Gate](#)], [[ORCID](#)], [[Hydrogaia](#)]

RESEARCH PROJECT FUNDING* & PARTICIPATION

- (R22)* **REACT4MED:** Inclusive Outscaling of Agro-ecosystem REstoration ACTions for the MEDiterranean. Topic 1.1.1-2021(RIA) Sustainable soil and water management for combating land degradation and desertification and promoting ecosystem restoration, PRIMA (2022-2025).
- (R21)* **STREAM:** STREAM-SusTainable REservoir mAnagement in water-stressed Mediterranean areas (2021-2023). Prince Albert II Foundation.
- (R20) **PROCLIAS:** Process-based models for climate impact attribution across sectors. COST Action (2020 – 2024).
- (R19) **FIRElinks:** Fire in the Earth System: Science and Society. COST Action (11/2019 – 10/2023).
- (R18) **SOILCARE:** Soil Care for profitable and sustainable crop production in Europe. H2020 SFS-02b-2015 - Assessing soil-improving cropping systems. (3/2016 – 8/2021)
- (R17) **IMPREX:** IMproving PRedictions and management of hydrological Extremes (Research and Innovation Action, H2020-WATER-2a-2014), (10/2015-09/2019).
- (R16) **HELIX:** High-End cLimate Impacts and eXtremes (Collaborative Large Scale Integrated Project, FP7-ENV.2013.6.1-3) (11/2013-10/2017).
- (R15) **RECARE:** Preventing and Remediating degradation of soils in Europe through Land Care (Collaborative Large Scale Integrated Project, FP7-ENV.2013.6.2-4), (11/2013-10/2017).
- (R14) **CASCADE:** Catastrophic Shifts in drylands; how CAN we prevent ecosystem DEgradation (Collaborative Large Scale Integrated Project, FP7-ENV.2011.2.1.4-2), (5/2012-06/2017).
- (R13) **REINFORCE:** Remote sEnsing meteorologIcal data fusioN for effective Flood mitigatiOn and foReCasting over Eastern Mediterranean, GSRT, ARISTEIA II Action, Greece (7/2014-8/2015).
- (R12) **IMPACT2C:** Quantifying projected impacts under 2°C warming. (Collaborative Large Scale Integrated Project, FP7-ENV.2011.1.1.6-1), (10/2011-09/2015).
- (R11) **ECLISE:** Enabling CLimate Information Services for Europe. (Collaborative project, FP7-ENV.2010.1.1.4-1), (2/2011-05/2014).
- (R10) **SATFLOOD:** Integrated Use of Satellite Remote Sensing and Hydraulic Modelling for the Flood Risk Assessment at Catchment Scale in Cyprus, Institute for Research Advancement, Nicosia, Cyprus, (11/2011-11/2013).
- (R09) **COMBINE:** Comprehensive Modelling of the Earth System for Better Climate Prediction and Projection. (Collaborative Large Scale Integrated Project, FP7-ENV.2008.1.1.4.1), (5/2009-10/2013).
- (R08) **SIMFLOOD:** High Resolution Satellite Imagery for Floodplain Mapping, European Space Agency (5/2009-8/2011).
- (R07) **WATCH:** WATer & global CHance (Collaborative Large Scale Integrated Project, FP6-ENV.6.3. II.1.1), (2/2007-7/2011).
- (R06) **SCENES:** Water Scenarios for Europe and for Neighboring States (Collaborative Large Scale Integrated Project, FP6-ENV.6.3. II.4.1), (11/2006-4/2011).
- (R05) **HYDRATE:** Hydrometeorological data resources and technologies for effective flash flood forecasting (Specific Targeted Research Project – FP6 SUB-PRIORITY 1.1.6.3), (9/2006-7/2010).
- (R04) **FFF:** Flash Flood Forecasting with the Use of C-Band Radar in the Island of Crete: General Secretariat for Research and Technology, International S & T Cooperation Directorate - Bilateral Relations Division, Scientific and Technological Cooperation between RTD Organizations in Greece and RTD Organizations in USA & Canada, (11/2006-3/2008).
- (R03) **HarmoniRib:** Harmonized Techniques and Representative River Basin Data for Assessment and Use of Uncertainty Information in Integrated Water Management (Research and technological development (RTD) project, FP5- EVK1-CT-2002-00109), (10/2002-7/2007).

- (R02) **BEWARE:** Best Water use innovative Practices towards a Sustainable Water Resources Management, CRINNO-Regional Program of Innovative Action, European Community innovative Program, (1/2003-12/2005).
- (R01) **Environmental Database for Chania Prefecture:** Web-Site Development, Local Authority of Municipalities of Chania, Crete (9/2002-6/2003).

PUBLICATIONS

Published in Peer Reviewed Journals

- (J59) Hessel, R., Wyseure, G., Panagea, I.S., Alaoui, A., Reed, M.S., Van Delden, H., Muro, M., Mills, J., Oenema, O., Areal, F. and Van den Elsen, E., 2022. Soil-Improving Cropping Systems for Sustainable and Profitable Farming in Europe. *Land*, 11(6), p.780.
- (J58) Grillakis, M., Voulgarakis, A., Rovithakis, A., Seiradakis, K.D., **Koutroulis, A.**, Field, R.D., Kasoar, M., Papadopoulos, A. and Lazaridis, M., 2022. Climate drivers of global wildfire burned area. *Environmental Research Letters*, 17(4), p.045021.
- (J57) Thiery W., Lange S., Rogelj J., Schleussner C-F., Gudmundsson L., Seneviratne S.I., Andrijevic M., Frieler K., Emanuel K., Geiger T., Bresch D., Zhao F., Willner S.N., Büchner M., Volkholz V., Bauer N., Chang J., Ciais P., Dury M., François L., Grillakis M., Gosling S.N., Hanasaki N., Hickler T., Huber V., Ito A., Jägermeyr J., Khabarov N., **Koutroulis A.**, Liu W., Lutz W., Mengel M., Müller C., Ostberg S., Reyer C., Stacke T., Wada Y. Intergenerational inequities in exposure to climate extremes. *Science*. 2021; science.org/doi/epdf/10.1126/
- (J56) Satoh, Y., Shiogama, H., Hanasaki, N., Pokhrel, Y.N., Boulange, J.E.S., Burek, P., Gosling, S.N., Grillakis, M., **Koutroulis, A.G.**, Schmied, H.M. and Thiery, W., 2021. A quantitative evaluation of the issue of drought definition: A source of disagreement in future drought assessments. *Environmental Research Letters*.
- (J55) Tsanis IK, Seiradakis KD, Sarchani S, Panagea IS, Alexakis DD, **Koutroulis AG**. The Impact of Soil-Improving Cropping Practices on Erosion Rates: A Stakeholder-Oriented Field Experiment Assessment. *Land*. 2021; 10(9):964. <https://doi.org/10.3390/land10090964>
- (J54) Fernandez-Anez, N., Krasovskiy, A., Müller, M., Vacik, H., Baetens, J., Hukić, E., Kapovic Solomun, M., Atanassova, I., Glushkova, M., Bogunović, I. and Fajković, H., 2021. Current Wildland Fire Patterns and Challenges in Europe: A Synthesis of National Perspectives. *Air, Soil and Water Research*, 14, p.11786221211028185.
- (J53) Telteu, C.-E., Müller Schmied, H., Thiery, W., Leng, G., Burek, P., Liu, X., Boulange, J. E. S., Andersen, L. S., Grillakis, M., Gosling, S. N., Satoh, Y., Rakovec, O., Stacke, T., Chang, J., Wanders, N., Shah, H. L., Trautmann, T., Mao, G., Hanasaki, N., **Koutroulis, A.**, Pokhrel, Y., Samaniego, L., Wada, Y., Mishra, V., Liu, J., Döll, P., Zhao, F., Gädeke, A., Rabin, S. S., and Herz, F.: Understanding each other's models: an introduction and a standard representation of 16 global water models to support intercomparison, improvement, and communication, *Geosci. Model Dev.*, 14, 3843–3878, <https://doi.org/10.5194/gmd-14-3843-2021>, 2021.
- (J52) Grillakis, M.G., **Koutroulis, A.G.**, Alexakis, D.D., Polykretis, C. and Daliakopoulos, I.N., 2021. Regionalizing Root-Zone Soil Moisture Estimates From ESA CCI Soil Water Index Using Machine Learning and Information on Soil, Vegetation, and Climate. *Water Resources Research*, 57(5), p.e2020WR029249.
- (J51) Gudmundsson L., H. X. Do, Simon N. Gosling, M. G. Grillakis, **A. G. Koutroulis**, M. Leonard, J. Lui, H. M. Schmied, L. Papadimitriou, Y. Pokhrel, J. Schewe, S. I. Seneviratne, W. Thiery, S. Westra, X. Zhang, F. Zhao. (2021). Globally observed trends in mean and extreme river flow attributed to climate change. *Science* Vol. 371, 6534, pp. 1159-1162, doi:10.1126/science.aba3996.

- (J50) Pokhrel, Y., Felfelani, F., Satoh, Y., Boulange, J., Burek, P., Gädeke, A., Gerten, D., Gosling, S. N., Grillakis, M., Gudmundsson, L., Hanasaki, N., Kim, H., **Koutroulis, A.**, Liu, J., Papadimitriou, L., Schewe, J., Müller Schmied, H., Stacke, T., Telteu, C. E., Thiery, W., Veldkamp, T., Zhao, F., Wada, Y., Global Terrestrial Water Storage and Drought Severity under Climate Change, *Nature Climate Change*, 11(3), pp.226-233.
- (J49) Reinecke, R., Müller Schmied, H., Trautmann, T., Burek, P., Flörke, M., Gosling, S. N., Grillakis, M., Hanasaki, N., **Koutroulis, A.**, Pokhrel, Y., Seaby, L., Thiery, W., Wada, Y., Yusuke, S., and Döll, P.: Uncertainty of simulated groundwater recharge at different global warming levels: A global-scale multi-model ensemble study, *Hydrol. Earth Syst. Sci.*, <https://doi.org/10.5194/hess-25-787-2021>, 2021.
- (J48) Lange, S., Volkholz, J., Geiger, T., Zhao, F., Vega, I., Veldkamp, T., Reyer, C.P.O., Warszawski, L., Huber, V., Jägermeyr, J., Schewe, J., Bresch, D.N., Büchner, M., Chang, J., Ciais, P., Dury, M., Emanuel, K., Folberth, C., Gerten, D., Gosling, S.N., Grillakis, M., Hanasaki, N., Henrot, A., Hickler, T., Honda, Y., Ito, A., Khabarov, N., Koutroulis, A., Liu, W., Müller, C., Nishina, K., Ostberg, S., Müller Schmied, H., Seneviratne, S.I., Stacke, T., Steinkamp, J., Thiery, W., Wada, Y., Willner, S., Yang, H., Yoshikawa, M., Yue, C., Frieler, K., (2020). Projecting exposure to extreme climate impact events across six event categories and three spatial scales. *Earth's Future*. <https://doi.org/10.1029/2020EF001616> (J47)
- (J47) Tramblay Y., **Koutroulis A.**, Samaniego L., et al (2020) Challenges for drought assessment in the Mediterranean region under future climate scenarios. *Earth-Science Rev* 103348. doi: 10.1016/j.earscirev.2020.103348
- (J46) Gädeke A, Krysanova V, Aryal A, Chang J, Grillakis M, Hanasaki N, **Koutroulis A**, Pokhrel Y, Satoh Y, Schaphoff S, Schmied HM. Performance evaluation of global hydrological models in six large Pan-Arctic watersheds. *Climatic Change* 163, 1329–1351 (2020). <https://doi.org/10.1007/s10584-020-02892-2>.
- (J45) Tichavský, R., **Koutroulis, A.**, Chalupová, O., Chalupa, V., Šilhán, K. Flash flood reconstruction in the Eastern Mediterranean: Regional tree ring-based chronology and assessment of climate triggers on the island of Crete. *Journal of Arid Environments* 2020, 177,104135, <https://doi.org/10.1016/j.jaridenv.2020.104135>
- (J44) Hunink J., G. Simons, S. Suárez, A. Solera, J. Andreu, M. Giuliani, P. Zamberletti, M. Grillakis, **A. Koutroulis**, I. Tsanis, F. Schasfoort, S. Contreras, E. Ercin, W. Bastiaanssen. A simplified water accounting procedure to assess climate change impact on water resources for agriculture across different European river basins. *Water*, 2019, 11, 1976.
- (J43) Nerantzaki, S.D., Efstatithiou, D, Giannakis, G.V., Kritsotakis, M., Grillakis, M.G., **Koutroulis, A.G.**, Tsanis, I.K., Nikolaidis, N.P. "Climate change impact on the hydrological budget of a large Mediterranean island". *Hydrological Sciences Journal*. 64 (10), 2019, pp. 1190-1203
- (J42) **Koutroulis A.G.**, Papadimitriou L.V., Grillakis M.G., Tsanis I.K., Warren R., Betts R.A. "Global water availability under high-end climate change: a vulnerability based assessment", *Global and Planetary Change*, 2019, 175, pp.52-63.
- (J41) Shannon, S., Smith, R., Wiltshire, A., Payne, T., Huss, M., Betts, R., Caesar, J., **Koutroulis, A.**, Jones, D., and Harrison, S.: Global glacier volume projections under high-end climate change scenarios, *The Cryosphere*, 13, 325-350, <https://doi.org/10.5194/tc-13-325-2019>, 2019.
- (J40) **Koutroulis, A.G.** "Dryland changes under different levels of global warming". *Science of the Total Environment*, November 2018. <https://doi.org/10.1016/j.scitotenv.2018.11.215>.
- (J39) Grillakis, M.G., **Koutroulis, A.G.**, Tsanis, I.K., "Improving seasonal forecasts for basin scale hydrological applications" *Water*, October 2018, 10(11), 1593; <https://doi.org/10.3390/w10111593>.

- (J38) **Koutroulis, A.G.**, Papadimitriou, L.V., Grillakis, M.G., Tsanis, I.K., Ceasar K., Wyser K., Betts R.A. "Simulating hydrological impacts under climate change. Implications from methodological differences of a Pan-European assessment", *Water*, September 2018, 10(10), 1331; <https://doi.org/10.3390/w10101331>.
- (J37) **Koutroulis A.G.**, Grillakis, M.G., Tsanis, I.K., D. Jacob, "Mapping the vulnerability of European summer tourism under 2°C global warming", *Climatic Change*, September 2018. <https://doi.org/10.1007/s10584-018-2298-8>.
- (J36) Richard A. Betts, L. Alfieri, J. Caesar, J. Chang, P. Ciais, L. Feyen, P. Friedlingstein, L. Gohar, **A.G. Koutroulis**, L. Papadimitriou, I. Tsanis, K. Wyser, "Changes in climate extremes, fresh water availability and vulnerability to food insecurity projected at 1.5°C and 2°C global warming with a higher-resolution global climate model", *Philosophical Transactions of the Royal Society A*. 376 (2119), 20160452, February 2018, doi:10.1098/rsta.2016.0452.
- (J35) **Koutroulis, A.G.**, Papadimitriou, L.V., Grillakis, M.G., Tsanis, I.K., Wyser K., Betts R.A., "Freshwater vulnerability under high end climate change. A pan-European assessment" *Science of the Total Environment*, 613-614, pp.271-286, doi.org/10.1016/j.scitotenv.2017.09.074. September 2017.
- (J34) Jacob D., L. Kotova, C. Teichmann, S.P. Sobolowski, R. Vautard, C. Donnelly, **A.G. Koutroulis**, M.G. Grillakis, I.K. Tsanis, A. Damm, A. Sakalli, M.T.H. van Vliet, "Climate impacts in Europe under +1.5°C global warming", *Earth's Future*, 6(2), pp. 264-285, January 2018. doi: 10.1002/2017EF000710.
- (J33) Grillakis, M.G., **Koutroulis, A.G.**, Daliakopoulos, I.N., Tsanis, I.K., "A method to preserve trends in quantile mapping bias correction of climate modelled temperature", *Earth System Dynamics*, 8(3), pp. 889-900, September 2017. doi.org/10.5194/esd-8-889-2017.
- (J32) Papadimitriou, L.V., **Koutroulis, A.G.**, Grillakis, M.G., Tsanis, I.K., "The effect of GCM biases on global runoff simulations of a land surface model", *Hydrology & Earth System Sciences*, 21, pp.4379-4401, September 2017. doi.org/10.5194/hess-21-4379-2017, 2017.
- (J31) Daliakopoulos, I.N., Panagea, S.I., Tsanis, I.K., Grillakis, M.G., **Koutroulis, A.G.**, Hessel, R., Mayor, A.G., and Ritsema, C.J., "Yield Response of Mediterranean Rangelands under a Changing Climate", *Land Degradation & Development*, 28 (7), pp.1962-1972, doi.org/10.1002/lde.2717. May 2017.
- (J30) Grillakis, M.G., **Koutroulis, A.G.**, Komma, J., Tsanis, I.K., Wagner, W. and Blöschl, G., 2016. Initial soil moisture effects on flash flood generation-A comparison between basins of contrasting hydro-climatic conditions. *Journal of Hydrology*, 541, pp. 206-217. doi:10.1016/j.jhydrol.2016.03.007.
- (J29) **Koutroulis, A. G.**, M. G. Grillakis, I. K. Tsanis, and L. Papadimitriou, 2016. Evaluation of precipitation and temperature simulation performance of the CMIP3 and CMIP5 historical experiments. *Climate Dynamics*, 47(5-6), pp 1881–1898, doi: 10.1007/s00382-015-2938-x.
- (J28) Daliakopoulos, I.N., Tsanis I.K., **Koutroulis, A.**, Kourgialas N., Varouchakis, E., Karatzas P., Ritsema C., 2016. The Threat of Soil Salinity: a European scale review. *Science of the Total Environment*. 573, 727-739. doi: 10.1016/j.scitotenv.2016.08.177.
- (J27) Grillakis M.G., **Koutroulis A.G.**, Tsanis I.K., 2016. The 2°C global warming effect on summer European tourism through different indices. *International Journal of Biometeorology*, 60(8), pp. 1205-1215. doi: 10.1007/s00484-015-1115-6.
- (J26) Grillakis, M.G., **Koutroulis, A.G.**, Papadimitriou, L.V., Daliakopoulos, I.N. and Tsanis, I.K., 2016. Climate induced shifts in global soil temperature regimes. *Soil Science* 181 (6), 264-272. doi:10.1097/SS.0000000000156.
- (J25) Iordanidou, V., **Koutroulis, A. G.**, Tsanis, I.K., 2016. Investigating the relationship of lightning activity and rainfall: Case study for Crete Island. *Atmospheric Research* 172-173, pp. 16–27, doi.org/10.1016/j.atmosres.2015.12.021.

- (J24) Papadimitriou, L.V., **Koutroulis, A.G.**, Grillakis, M.G., Tsanis, I.K., 2016. High-end climate change impact on European runoff and low flows – exploring the effects of forcing biases. *Hydrol. Earth Syst. Sci.*, doi:10.5194/hess-20-1785-2016, 20 (5), pp.1785-1808.
- (J23) Grillakis, M.G., **Koutroulis, A.G.**, Seiradakis, K.D. and Tsanis, I.K., 2016. Implications of 2°C global warming in European summer tourism. *Climate Services*, 1, pp.30-38.
- (J22) **Koutroulis, A. G.**, Grillakis M.G., Daliakopoulos, I.N., Tsanis I.K., and Jacob D., 2016. Cross sectoral impacts on water availability at +2 °C and +3 °C for east Mediterranean island states: the case of Crete. *Journal of Hydrology* 532, pp. 16-28. DOI: 10.1016/j.jhydrol.2015.11.015.
- (J21) **Koutroulis, A.G.**, Grillakis, M.G., Tsanis, I.K., Jacob, D., 2015. Exploring the ability of current climate information to facilitate local climate services for the water sector. *Earth Perspectives*. 2, 6. doi:10.1186/s40322-015-0032-5.
- (J20) Iordanidou, V., **Koutroulis, A.G.**, Tsanis, I.K., 2015. Mediterranean cyclone characteristics related to precipitation occurrence in Crete, Greece. *Natural Hazards and Earth System Sciences*, 15 (8), pp. 1807–1819, doi:10.5194/nhess-15-1807-2015.
- (J19) Iordanidou, V., **Koutroulis, A.G.**, Tsanis I.K., 2015. Cyclone-precipitation analysis for the island of Crete. Special Issue of the *Journal of the Black Sea/Mediterranean Environment*, Vol. 21, pp. 70-73.
- (J18) Panagea, I.S., Tsanis, I.K., **Koutroulis, A.G.**, Grillakis, M.G., 2014. Climate change impact on Photovoltaic Energy Output: The case of Greece. *Advances in Meteorology*, Vol. 2014, Article ID: 264506, 11 pages, <http://dx.doi.org/10.1155/2014/264506>.
- (J17) Iordanidou, V., **Koutroulis, A.G.**, Tsanis, I.K., 2014. A Probabilistic Rain Diagnostic Model Based on Cyclone Statistical Analysis. *Advances in Meteorology*, Vol. 2014, Article ID: 498020, 11 pages, <http://dx.doi.org/10.1155/2014/498020>.
- (J16) Alexakis, D.D., M.G. Grillakis, **A.G. Koutroulis**, A. Agapiou, K. Themistocleous, I.K. Tsanis, S. Michaelides, S. Pashiardis, C. Demetriadou, K. Aristeidou, A. Retalis, F. Tymvios, D.G. Hadjimitsis. 2014. GIS and Remote Sensing Techniques for the Assessment of Land Use Changes Impact on Flood Hydrology: the Case Study of Yialias Basin in Cyprus. *Natural Hazards and Earth System Sciences*, 14(2), 413-426, doi:10.5194/nhess-14-413-2014.
- (J15) Tsanis, I.K., Seiradakis, K.D., Daliakopoulos I.N., Grillakis, M.G., **Koutroulis, A.G.**, 2013. Assessment of Geoeye-1 Stereo-Pair Generated DEM in Flood Mapping of an Ungauged Basin. *Journal of Hydroinformatics* 16 (1) pp. 1-18, DOI: 10.2166/hydro.2013.197.
- (J14) Tsanis, I.K., Grillakis M.G., **Koutroulis, A.G.**, Jacob D., 2013. Reducing uncertainty on global precipitation projections. *Journal of Earth Science and Climate Change*, 5:1, <http://dx.doi.org/10.4172/2157-7617.1000178>.
- (J13) Grillakis. M. G., **Koutroulis A. G.**, Tsanis I.K, 2013. Multisegment statistical bias correction of daily GCM precipitation output. *Journal of Geophysical Research Atmospheres*, 118 (8), pp. 3150–3162, DOI: 10.1002/jgrd.50323.
- (J12) Alexakis D.D., **Koutroulis, A.G.**, Grillakis, M.G., Agapiou, A., Themistocleous, K., Tsanis, I.K., Hadjimitsis, D.G., 2013. Using spatio-temporal Marcov model for Flood mapping: The case study of Yialias river in Cyprus. *Remote Sensing for Agriculture, Ecosystems, and Hydrology*. SPIE 8887, *Remote Sensing for Agriculture, Ecosystems, and Hydrology XV*, 88870U, doi: 10.1117/12.2029276.
- (J11) **Koutroulis, A.G.**, Tsanis, I.K., Daliakopoulos, I.N., Jacob, D., 2013. Impact of climate change on water resources status: a case study for Crete Island, Greece. *Journal of Hydrology* 479 (4) pp. 146-158. DOI: 10.1016/j.jhydrol.2012.11.055.

- (J10) Vrochidou A.-E.K., I.K. Tsanis I.K., Grillakis M.G., **Koutroulis A.G.**, 2013. The impact of climate change on hydrometeorological droughts at a basin scale. *Journal of Hydrology*, 476, pp. 290-301, <http://dx.doi.org/10.1016/j.jhydrol.2012.10.046>.
- (J09) **Koutroulis A.G.**, Grillakis, M.G., Tsanis I.K., V. Kotroni and K. Lagouvardos, 2012. Lightning activity, rainfall and flash flooding - occasional or interrelated events? A case study in the island of Crete. *Natural Hazards and Earth System Sciences*, 12(4), 881-891, doi:10.5194/nhess-12-881-2012.
- (J08) Tsanis, I.K., **Koutroulis, A.G.**, Daliakopoulos, I.N., Jacob, D., 2011. Severe climate-induced water shortage and extremes in Crete. *Climatic Change* 106 (4), pp. 667-677. DOI: 10.1007/s10584-011-0048-2.
- (J07) Grillakis. M. G., Tsanis I.K., **Koutroulis A.G.**, 2011. Climate change impact on the hydrology of Spencer Creek watershed in Southern Ontario, Canada. *Journal of Hydrology*, 409(1-2), pp. 1-19, doi:10.1016/j.jhydrol.2011.06.018.
- (J06) **Koutroulis, A.G.**, Tsanis, I.K., 2010. A method for estimating flash flood peak discharge in a poorly gauged basin: Case study for the 13-14 January 1994 flood, Giofyros basin, Crete. *Journal of Hydrology*, 385(1-4), pp.150-164, doi.org/10.1016/j.jhydrol.2010.02.012.
- (J05) **Koutroulis, A.G.**, Tsanis, I.K., Daliakopoulos, I.N., 2010. Seasonality of floods and their hydrometeorologic characteristics in the island of Crete. *Journal of Hydrology* 394 (1-2), pp. 90-100. DOI: 10.1016/j.jhydrol.2010.04.025.
- (J04) **Koutroulis A.G.**, Vrochidou A., Tsanis I.K., 2010. Spatiotemporal characteristics of droughts for the island of Crete. *Journal of Hydrometeorology*, 12, pp. 206-226, doi: 10.1175/2010JHM1252.1.
- (J03) Grillakis, M. G., Tsanis, I. K., and **Koutroulis, A. G.** 2010. Application of the HBV hydrological model in a flash flood case in Slovenia. *Nat. Hazards Earth Syst. Sci.*, 10(12), pp. 2713-2725, doi:10.5194/nhess-10-2713-2010.
- (J02) Daliakopoulos, I.N., Grillakis, E.G., **Koutroulis, A.G.**, Tsanis, I.K., 2009. Tree crown detection on multispectral VHR satellite imagery. *Photogrammetric Engineering and Remote Sensing* 75 (10), pp. 1201-1211.
- (J01) E. Gaume, V. Bain, P. Bernardara, O. Newinger, M. Barbuc, A. Bateman, L. Blaškovičová, G. Blöschl, M. Borga, A. Dumitrescu, I. Daliakopoulos, J. Garcia, A. Irimescu, S. Kohnova, **A. Koutroulis**, L. Marchi, S. Matreata, V. Medina, E. Preciso, D. Sempere-Torres, G. Stancalie, J. Szolgay, I. Tsanis, D. Velasco, A. Viglione, 2009. A compilation of data on European flash floods. *Journal of Hydrology* 367 (1-2), pp. 70-78. doi: 10.1016/j.jhydrol.2008.12.028.

Chapters in books

- (B7) Fader M, Giupponi C, Burak S, Dakhlaoui H, **Koutroulis A**, Lange MA, Llasat MC, Pulido-Velazquez D, Sanz-Cobeña A 2020 Water. In: Climate and Environmental Change in the Mediterranean Basin – Current Situation and Risks for the Future. First Mediterranean Assessment Report [Cramer W, Guiot J, Marini K (eds.)] Union for the Mediterranean, Plan Bleu, UNEP/MAP, Marseille, France, 57pp, in press
- (B6) Balzan MV, Hassoun AER, Aroua N, Baldy V, Bou Dagher M, Branquinho C, Dutay J-C, El Bour M, Médail F, Mojtafid M, Morán-Ordóñez A, Roggero PP, Rossi Heras S, Schatz B, Vogiatzakis IN, Zaimis GN, Ziveri P 2020 Ecosystems. In: Climate and Environmental Change in the Mediterranean Basin – Current Situation and Risks for the Future. First Mediterranean Assessment Report [Cramer W, Guiot J, Marini K (eds.)] Union for the Mediterranean, Plan Bleu, UNEP/MAP, Marseille, France, 151pp, in press

- (B5) Berry, P.M., Betts, R.A., Harrison, P.A. and Sanchez-Arcilla, A. (Eds.) (2017) High-End Climate Change in Europe. Pensoft Publishers, Sofia, 100 pp. Lead Author of Chapter on Freshwater. ISBN 978-954-642-861-5
- (B4) Panagea, I.S., Tsanis, I.K., **Koutroulis, A.G.** and Grillakis, M.G., 2014. Climate change impact on photovoltaic energy output: the case of Greece, 2014. Chapter 4: In Adaramola, M., (Ed.), 2016. Climate Change and the Future of Sustainability: The Impact on Renewable Resources. 1st edition. (pp 358). Apple Academic Press. ISBN 9781771884310.
- (B3) Tsanis, I.K., Daliakopoulos, I.N., **Koutroulis, A.**, Karatzas, P., Varouchakis, E., Kourgialas, N., 2015. "Soil Salinization" in "Soil threats in Europe: Status, methods, drivers and effects on ecosystem services" Editors: Stolte, J., Tesfai, M., Øygarden, L., Kværnø, S., Keizer, J., Verheijen, F., Panagos, P., Ballabio, C., Hessel, R. EUR 27607 EN; doi:10.2788/488054 (print); doi:10.2788/828742 (online), Luxembourg
- (B2) Tsanis, I.K. and **Koutroulis A. G.** "Impact of Climate Change on Water Resources in Crete", Book to Honour the Emeritus Professor Dimitrios Tolikas, Aristotle University of Thessaloniki, 77-87, 2013.
- (B1) V. Bain, O. Newinger, E. Gaume, P. Bernardara, M. Barbuc, A. Bateman, J. Garcia, V. Medina, D. Sempere-Torres, D. Velasco, L. Blaškovic'ová, G. Blöschl, A. Viglione, M. Borga, A. Dumitrescu, A. Irimescu, G. Stancalie, S. Kohnova, J. Szolgay, **A. Koutroulis**, I. Tsanis, L. Marchi & E. Preciso. European flash floods data collation and analysis in Flood Risk Management: Research and Practice – Samuels et al. (eds). 2009 Taylor & Francis Group, London, ISBN 978-0-415-48507-4

Conference Proceedings and *Publications

- (C80) Tichavský R., Koutroulis A., Fabiánová A., Spálovský V., Occasional but severe: past debris flows and snow avalanches in the Helmos Mts. (Greece) reconstructed from tree-ring records. International Conference on Geomorphology (ICG 2022), 12-16 Sept 2022, Portugal.
- (C79) Thiery W., Lange S., Rogelj J., Schleussner C-F., Gudmundsson L., Seneviratne S.I., Andrijevic M., Frieler K., Emanuel K., Geiger T., Bresch D., Zhao F., Willner S.N., Büchner M., Volkholz V., Bauer N., Chang J., Ciais P., Dury M., François L., Grillakis M., Gosling S.N., Hanasaki N., Hickler T., Huber V., Ito A., Jägermeyr J., Khabarov N., **Koutroulis A.**, Liu W., Lutz W., Mengel M., Müller C., Ostberg S., Reyer C., Stacke T., Wada Y. Intergenerational inequities in exposure to climate extremes. Scenarios Forum 2022. 20-22 June 2022, Laxenburg, Austria
- (C78) **Aristeidis G. Koutroulis**, Manolis Grillakis, Nicola Crippa, Guang Yang and Matteo Giuliani. Sub-seasonal to climatic hydrologic predictions for sustainable reservoir management in water-stressed Mediterranean basins. EGU22-11147. EGU General Assembly 2022
- (C77) N. Crippa, G. Yang, M. Grillakis, **A. Koutroulis**, M. Giuliani. Assessing the value of seasonal forecasts in informing reservoir operations in water-stressed Mediterranean basins. EGU22-5956. EGU General Assembly 2022
- (C76) Hannes Müller Schmied, Matthias Büchner, Jochen Klar, Ilius Vega del Valle, **Aristeidis Koutroulis**, Simon N. Gosling, Laura Dobor, Emmanuel Nyenah, and Christopher Reyer. Improving impact model intercomparison by developing and applying quality control and quality assessment tools – the example of the ISIMIP global water sector. EGU22-5368. EGU General Assembly 2022
- (C75) Ioannis K. Tsanis, Konstantinos D. Seiradakis, Sofia Sarchani, Ioanna S. Panagea, Dimitrios D. Alexakis and **Aristeidis G. Koutroulis**. Biophysical Measurements and Soil Loss Rate Assessment in Field Studies with Improved Cropping Techniques. EGU22-2961. EGU General Assembly 2022

- (C74) **Koutroulis A.**, Grillakis M., Mathison C and Burke E. River parametrisation of the JULES land surface model for improved runoff routing at the global scale. EGU21-3444. EGU General Assembly 2021.
- (C73) Fader M., Giupponi C., Burak S., Dakhlaoui H., **Koutroulis A.**, Lange M.A., Llasat M.C., Pulido-Velazquez D., Sanz-Cobeña A., Grillakis M., Mrabet, R., Saurí D., Savé R., Todorovic M., Tramblay Y., Zwirglmaier V. Future water-related risks and management options in the Mediterranean basin. EGU21-10570. EGU General Assembly 2021.
- (C72) Yadu Pokhrel, Farshid Felfelani, Yusuke Satoh, Julien Boulange, Peter Burek, Anne Gädeke4, Dieter Gerten, Simon N. Gosling, Manolis Grillakis, Lukas Gudmundsson, Naota Hanasaki, Hyungjun Kim, **Koutroulis A.**, Junguo Liu, Lamprini Papadimitriou, Jacob Schewe, Hannes Müller Schmied, Tobias Stacke, Camelia-Eliza Telteu, Wim Thiery, Ted Veldkamp, Fang Zhao and Yoshihide Wada3. Terrestrial water storage under changing climate and implications on future droughts. EGU21-738. EGU General Assembly 2021.
- (C71) Wim Thiery Stefan Lange, Joeri Rogelj, Carl-Friedrich Schleussner, Lukas Gudmundsson, Sonia I. Seneviratne, Katja Frieler, Kerry Emanuel, Tobias Geiger, David N. Bresch, Fang Zhao Sven N. Willner, Matthias Büchner, Jan Volkholz, Nico Bauer, Jinfeng Chang, Philippe Ciais, Marie Dury, Louis François, Manolis Grillakis, Simon N. Gosling, Naota Hanasaki, Thomas Hickler, Veronika Huber, Akihiko Ito, Jonas Jägermeyr, Nikolay Khabarov, **Koutroulis A.**, Wenfeng Liu, Matthias Mengel, Christoph Müller, Sebastian Ostberg, Christopher P. O. Reyer, Tobias Stacke, Yoshihide Wada. The kids aren't alright. EGU21-1226. EGU General Assembly 2021.
- (C70) Mathison C., Burke E., Robertson E., Gadeke A., **Koutroulis A.**, Grillakis M., ISIMIP runs using JULES., Annual JULES remote Open Science Meeting, 7-11th September 2020.
- (C69) **Koutroulis, A.**, Grillakis, M., and Tsanis, I.: Introducing seasonal hydro-meteorological forecasts in local water management. A local scale demonstrator for an intensively cultivated watershed in the island of Crete, Greece., EGU General Assembly 2020, Online, 4-8 May 2020, EGU2020-6869, <https://doi.org/10.5194/egusphere-egu2020-6869>, 2020
- (C68) Pokhrel, Y., Felfelani, F., Satoh, Y., Boulange, J., Burek, P., Gaedeke, A., Gerten, D., Gosling, S., Grillakis, M., Gudmundsson, L., Hanasaki, N., Kim, H., **Koutroulis, A.**, ... & Wada, Y. (2020, December). Impacts of climate change on global terrestrial water storage and the implications on future droughts. In AGU Fall Meeting Abstracts (Vol. 2020, pp. H172-0014).
- (C67) Grillakis, M. G., **Koutroulis, A. G.**, Polykretis, C., and Alexakis, D. D.: Estimating soil moisture at various depths from near surface ESA CCI Soil Moisture, EGU General Assembly 2020, Online, 4-8 May 2020, EGU2020-8613, <https://doi.org/10.5194/egusphere-egu2020-8613>, 2020
- (C66) **Koutroulis, A.**, Grillakis, M., and Tsanis, I.: Introducing seasonal hydro-meteorological forecasts in local water management. A local scale demonstrator for an intensively cultivated watershed in the island of Crete, Greece., EGU General Assembly 2020, Online, 4-8 May 2020, EGU2020-6869, <https://doi.org/10.5194/egusphere-egu2020-6869>, 2020
- (C65) Telteu, C.-E., Müller Schmied, H., Thiery, W., Leng, G., Burek, P., Liu, X., Boulange, J. E. S., Seaby, L. P., Grillakis, M., Satoh, Y., Rakovec, O., Stacke, T., Chang, J., Wanders, N., Tao, F., Zhai, R., Shah, H. L., Trautmann, T., Mao, G., **Koutroulis, A.**, Pokhrel, Y., Samaniego, L., Wada, Y., Mishra, V., Liu, J., Newland Gosling, S., Schewe, J., and Zhao, F.: Similarities and differences among fifteen global water models in simulating the vertical water balance, EGU General Assembly 2020, Online, 4-8 May 2020, EGU2020-7549, <https://doi.org/10.5194/egusphere-egu2020-7549>
- (C64) C. Telteu, H. M. Schmied, S. Gosling, W. Thiery, Y. Pokhrel, M. Grillakis, **A. Koutroulis**, Y. Wada, Y. Satoh, J. Boulange, L. P. Seaby, T. Stacke, X. Liu, F. Tao, R. Z., A. Ducharne, G. Leng, P. Burek, N. Wanders, T. Trautmann, V. Mishra, J. Schewe, F. Zhao, I. Menke, A. Shmurak, A. Koudou, A. K. Ahmed. Co-design of a Water Cycle Diagram to Discover Similarities and Differences among Global Water Impact Models. In: AGU Fall Meeting 2019. AGU, 2019.

- (C63) **Koutroulis, A.G.**, Vulnerability of Mediterranean water resources under high-end climate change. Recent development and challenges ahead, from regional to local scales. 2nd International Conference ADAPTtoCLIMATE, Heraklion, Greece, 24-25 June, 2019.
- (C62) **Koutroulis, A.G.**, Grillakis, M.G., Daliakopoulos, I.N., Projections of Mediterranean freshwater vulnerability in a global context and emerging adaptation developments at the local scale. TERRAenVISION 2019. 2-7 September 2019, Barcelona, Spain.
- (C61) C. E. Telteu, H. M. Schmied, S. N. Gosling, W. Thiery, Y. Pokhrel, M. Grillakis, **A. Koutroulis**, Y. Satoh, Y. Wada, J. Boulange, L. P. Seaby, T. Stacke, X. Liu, A. Ducharne, G. Leng, P. Burek, T. Trautmann, J. Schewe, F. Zhao, I. Menke, and A. Shmurak. Understanding each other's models: a standard representation of global water models to support intercomparison, development, and communication. EGU2019-6212. Vienna, Austria, 7-12 April 2019
- (C60) Gudmundsson L., H. X. Do, Simon N. Gosling, M. G. Grillakis, **A. G. Koutroulis**, M. Leonard, J. Lui, H. M. Schmied, L. Papadimitriou, Y. Pokhrel, J. Schewe, S. I. Seneviratne, W. Thiery, S. Westra, X. Zhang, F. Zhao. Detection of Human influence in global accounts of observed indicators of low, mean and high streamflowEGU2019-13487. Vienna, Austria, 7-12 April 2019
- (C59) Grillakis, M.G., **Koutroulis, A.G.**, Tsanis I.K., Seasonal drought forecast. A catchment scale assessment in the island of Crete, Greece. EGU2019-13799, Vienna, Austria, 7-12 April 2019 (poster)
- (C58)* Grillakis, M.G., **Koutroulis, A.G.**, "Hydrometeorological extremes in a warmer climate. A local scale assessment for the island of Crete", ECWS-3, 15 November 2018. MDPI AG, 10.3390/ECWS-3-05818
- (C57) **Koutroulis, A.G.**, Lamprini V. Papadimitriou, Manolis G. Grillakis, Tsanis, I.K. , Richard. A. Betts, "Uncertainties in large-scale hydrological projections. A pan European assessment under high-end climate change", EGU2018-11676, Vienna, Austria, 8-13 April 2018 (poster)
- (C56) Grillakis M., **Koutroulis, A.G.**, Tsanis I.K., "Assessing the skill of two operational seasonal forecast systems on a small insular Mediterranean catchment", EGU2018-10048, Vienna, 8-13 April 2018
- (C55) Grillakis M. G. & **Koutroulis A. G.** Unraveling the net effect of human induced climate change to the evolution of soil water resources. TERRAenVISION 2018. 29 January - 2 of February 2018, Barcelona, Spain.
- (C54) Shannon S.R., Smith R.S., Wiltshire A.J., Payne A.J., Betts R.A., Caesar J., **Koutroulis A.G.**, Harrison S., "Glacier volume projections under high-end climate change scenarios", Final HELIX-FP7 meeting, 3-5 October 2017, Exeter, UK
- (C53) Betts, R. A., C. Jinfeng, P. Ciais, **A. Koutroulis**, L. Papadimitriou, I. Tsanis, K. Wyser, "Impacts at 1.5°C and 2°C: uncertainties in regional climates and CO₂ concentration", 3rd European Climate Change Adaptation Conference (ECCA2017), 5-9 June 2017, Glasgow, UK (poster)
- (C52) **Koutroulis, A.G.**, Papadimitriou, L.V., Grillakis, M.G., Tsanis, I.K., "European freshwater vulnerability under high rates of global warming and plausible socio-economic narratives", EGU2017-11960, Vienna, Austria, 23-28 April 2017 (poster)
- (C51) **Koutroulis, A.G.**, Grillakis, M.G., Tsanis, I.K., "Introducing seasonal hydro-meteorological forecasts in local water management. First reflections from the Messara site, Crete, Greece", EGU2017-12072, Vienna, Austria, 23-28 April 2017
- (C50) Iordanidou, V., **Koutroulis, A.G.**, Tsanis, I.K., "The Topology of Cyclones Related with Rain Events in Crete Island, Greece", EGU2017-17701, Vienna, Austria, 23-28 April 2017
- (C49) Papadimitriou L.V., **Koutroulis A.G.**, Grillakis M.G., Tsanis I.K., "Representation of droughts under different forcing datasets", ISIMIP workshop 22-24 June, 2016, Potsdam Institute for Climate Impact Research (PIK) in Potsdam, Germany.
- (C48)* Papadimitriou L.V., **Koutroulis A.G.**, Grillakis M.G., Tsanis I.K., "Sensitivity of a global land surface model to the meteorological forcing. Effects on the representation of droughts", 2nd EWaS International Conf., June 1-4, Chania, Greece.

- (C47)* Iordanidou V., **Koutroulis A.G.**, Tsanis I.K., "Is rainfall intensity in thundery weather related to lightning flashes?", 2nd EWaS International Conf, June 1-4, Chania, Greece.
- (C46) Papadimitriou, L., Grillakis, M.G., **Koutroulis, A.G.**, Tsanis, I.K., "Sensitivity of hydrologic simulations to bias corrected driving parameters", EGU2016-12021, Vienna, Austria, 17-22 April 2016 (poster)
- (C45) Grillakis, M.G., **Koutroulis, A.G.**, Tsanis, I.K., "A new method of adjusting spatial and temporal biases for selected climate variables", EGU2016-11928, Vienna, Austria, 17-22 April 2016
- (C44) **Koutroulis, A.G.**, Grillakis, M.G., Tsanis, I.K., "Storms from the past in a warmer climate. Results from high-res non-hydrostatic modeling over Crete", EGU2016-11785, Vienna, Austria, 17-22 April
- (C43) **Koutroulis A.G.**, Grillakis M.G., Tsanis I.K. Studying the climate change impact at 2 degree warming on Water Resources for the island of Crete: A cross-sectoral approach. Multi-sectoral analysis of risks to climate change (hot spots) at 2 °C warming. International Scientific Conference – Our Common Future Under Climate Change, 1-10 July 2015, Paris, France.
- (C42) Tsanis I. K., L. Alfieri, **A. Koutroulis**, M. Grillakis, L. Papadimitriou, L. Feyen, M. Vousdoukas, E. Voukouvalas), M. Rozsai, A. Kitous, P. Ciais, X. Wang, K. Wyser, R. A. Betts. The impact of high-end climate change scenarios over Europe - Key Risks of Climate Change. International Scientific Conference – Our Common Future Under Climate Change, 1-10 July 2015, Paris, France.
- (C41) Tsanis I.K., Grillakis M.G., **Koutroulis A.G.**, "Mapping the vulnerability of European summer tourism at a 2oC globally warmer climate", European Climate Change Adaptation Conference, 12-14 May 2015, Copenhagen, Denmark.
- (C40) Tsanis I.K., Papadimitriou L., Grillakis M.G., **Koutroulis A.G.**, "The effect of bias adjustment in modeling global terrestrial water cycle and extremes", European Climate Change Adaptation Conference, 12-14 May 2015, Copenhagen, Denmark.
- (C39) Tsanis I.K., Grillakis M., Varouchakis E., **Koutroulis A.**, Seiradakis K., "Assessing regression kriging for its ability to represent precipitation fields over complex terrain using different gauging network densities", EGU2015, Vienna, Austria, 12-17 April 2015.
- (C38) Grillakis M., **Koutroulis A.**, Tsanis I.K., Jacob D., "Projections of European summer tourism demand at a +2 degrees warmer climate", EGU2015-9448, Vienna, Austria, 12-17 April 2015.
- (C37) Iordanidou V., **Koutroulis A.**, Tsanis I.K., "Investigating correlation of lighting activity and precipitation in an Eastern Mediterranean island", EGU2015-9833, Vienna, Austria, 12-17 April 2015.
- (C36) Iordanidou V., **Koutroulis A.G.**, Tsanis I.K., "Diagnosis of rainfall occurrence with the evaluation of Cyclone Probability Maps over Eastern Mediterranean", EGU2014-3947, Vienna, Austria, 27 April – 02 May 2014.
- (C35) **Koutroulis A.G.**, Tsanis I.K., Grillakis M.G., Jacob D., "Assessing the ability of current climate information to facilitate local climate services for the water sector", EGU2014-4006, Vienna, Austria, 27 April – 02 May 2014.
- (C34) Grillakis M.G., Panagea I., **Koutroulis A.G.**, Tsanis I.K., "Estimating the efficiency of P/V systems under a changing climate – the case study of Greece", EGU2014-3969, Vienna, Austria, 27 April – 02 May 2014.
- (C33) Tsanis I.K., **Koutroulis A.G.**, Grillakis M.G., Konstantopoulos K., Jacob D., "Estimating the impact of +2 degrees of global warming on European Tourism", EGU2014-3988, Vienna, Austria, 27 April – 02 May 2014.
- (C32) Tsanis I.K., **Koutroulis A.G.**, "Adaptive Water Resources management under Global Environmental Change. Examples from a small semiarid Mediterranean municipal district", Qatar Foundation Annual Research Conference, Doha, Qatar, 24-25 November 2013.

- (C31) Grillakis M. G., **Koutroulis A. G.**, Tsanis I. K. "Piece wise statistical bias correction for daily precipitation" International Conference on Regional Climate - CORDEX 2013, A partnership between WCRP, the European Commission and IPCC, 4-7 November 2013, Brussels, Belgium.
- (C30)* Kaminari M., Flocas H.A., Kouroutzoglou J., Tsanis I.K., **Koutroulis A.G.** & Simmonds I. Vertical structure of synoptic scale cyclones causing flood events in the island of Crete, 13th International Conference on Environmental Science and Technology, 5-7 September 2013, Athens, Greece.
- (C29)* Alexakis D.D., **A.G. Koutroulis**, M.G. Grillakis, A. Agapiou, K. Themistocleous, I.K. Tsanis, D.G. Hadjimitsis. "Using spatio-temporal Marcov model for Flood mapping: The case study of Yialias river in Cyprus". Remote Sensing for Agriculture, Ecosystems, and Hydrology. SPIE Remote Sensing. ERS13-RS101-88. 23 - 26 September 2013, Internationales Congress Center, Dresden, Germany.
- (C28) Grillakis M.G., **Koutroulis A.G.**, Tsanis I.K., Alexakis D.D., Hadjimitsis D.G., "Examination of land use change effect on extreme hydrological events. A case study of Gialias basin in Cyprus.", EGU2013-4519, Vienna, Austria, 07 – 12 April 2013.
- (C27) Tsanis I.K., Grillakis M.G., **Koutroulis A.G.**, Jacob D., "Developing local climate services to support climate adaptation policies for Greek region", EGU2013-4462, Vienna, Austria, 07 – 12 April 2013.
- (C26) **Koutroulis A.G.**, Grillakis M.G., Tsanis I.K., "Comparison of precipitation simulation performance by the CMIP3 and new CMIP5 models.", EGU2013-4435, Vienna, Austria, 07 – 12 April 2013.
- (C25) Iordanidou V., **Koutroulis A.G.**, Tsanis I.K., Flocas H.A., "Qualitative Features of Cyclones triggering high precipitation events in the Island of Crete, Eastern Mediterranean.", EGU2013-4410, Vienna, Austria, 07 – 12 April 2013.
- (C24) **Koutroulis A.G.**, Tsanis I.K, Jacob D., 2012, "Projections of water resources availability in Crete for the 21st century under the global change perspective", EGU2012-1836, EGU General Assembly 2012, 22 – 27 April. Vienna, Austria.
- (C23) Jacob D., Kotova L., and IMPACT2C Team, 2012, "IMPACT2C: "Quantifying projected impacts under 2oC warming", Vol. 14, EGU2012-7284, EGU General Assembly 2012, 22 – 27 April. Vienna, Austria.
- (C22) M.G. Grillakis, **Koutroulis A.G.**, Tsanis I.K., and Ulbrich U., 2012, "Improved bias correction for GCM precipitation data", EGU2012-1825, HS2.13, EGU General Assembly 2012, 22 – 27 April. Vienna, Austria.
- (C21)* Tsanis I.K., **Koutroulis A.G.**, Flocas H.A., Kaminari, M. & Simmonds I., 2012, Atmospheric circulation patterns associated with flood occurrence in Crete, Greece. Protection and Restoration of the Environment Protection and Restoration of the Environment XI, Thessaloniki, Greece. 1843-1852, 06 – 09 July 2012.
- (C20) Tsanis I.K., **Koutroulis A.G.** Climate change induced trends for water resources applications in the Island of Crete, Greece. Mediterranean Climate: From Past to Future: MedCLIVAR Final Conference, 6-9 June 2011, Italy.
- (C19) **Koutroulis A.G.**, I.K. Tsanis, Ability of ensemble RCMs to reproduce basic hydrometeorological variables for local impact studies. The case of Crete Island. EGU2011-6171. CL4.4. Hydrological change: Regional hydrological behavior und transient climate and land use conditions.
- (C18) Tsanis I.K., I.N. Daliakopoulos, K.G. Seiradakis, **Koutroulis A.G.**, Improving flood risk assessment using a satellite stereo-pair high resolution DEM. EGU2011-5905. NH1.2/AS4.7/HS12.6. Hydrometeorological modeling and Earth observations under extremes: issues of scale, dependence and robust frameworks for collective risk assessment.
- (C17) Grillakis M.G. I.K. Tsanis., **A.G. Koutroulis**. Parsimony in flash flood hydrological modeling. An application on Slovenia 2007 event. EGU2011-5949, Geophysical Extremes: Scaling representations and their applications. 2011.

- (C16) **Koutroulis A.G.**, I.K. Tsanis, V. Kotroni, and K. Lagouvardos. Lightning activity, rainfall and flash flooding. Occasional or interrelated events? A case study in the island of Crete. Vol. 12, PLINIUS12-7, 12th Plinius Conference on Mediterranean Storms, Corfu Island Greece, September 2010.
- (C15) Tsanis, I.K. and **A.G. Koutroulis**, Hazards from a changing climate in the Island of Crete, Greece., Conference on Integrated River Basin Management under the Water Framework Directive, 26th to 28th April 2010, Le Nouveau Siècle, Lille, France.
- (C14) Tsanis, I.K., I.N. Daliakopoulos, **A.G. Koutroulis**, and D. Jacob., Future Trends of Water Availability in the Island of Crete. EGU2010-9488, Vienna 2010.
- (C13) **Koutroulis A.G.**, I.K. Tsanis, D. Jacob, Ph. Lorenz, and J. H. Christensen., Severe Climate Induced Flash Floods and Droughts in Crete. EGU2010-9240, Vienna 2010.
- (C12) Tsanis, I.K., **A.G. Koutroulis**, I.N. Daliakopoulos, and E.G. Grillakis., Studying the hydro-meteorological extremes. The benefits from the European Flash Flood research oriented HYDRATE project. EGU2010-8744, Vienna 2010.
- (C11) **Koutroulis A.G.**, A.K. Vrochidou, Tsanis, I.K., and D. Jacob., Meteorological drought patterns and climate change for the island of Crete. EGU2010-8782, Vienna 2010.
- (C10) **Koutroulis, A.G.** and I. K. Tsanis, Seasonality analysis of hydrological characteristics and flash flood events in Greece, EGU2009, Vienna, April 20-21, 2009.
- (C09) Tsanis, I.K. and **Koutroulis A.G.**, A simple method of estimating flash flood peak discharge in a poorly gauged basin, EGU2009, Vienna, April 20-21, 2009.
- (C08)* V. Bain, E. Gaume, P.Bernardara, O. Newinger, M. Barbuc, L. Blaškovičová, G. Blöschl, M. Borga, J. Garcia, A. Irimescu, S. Kohnova, **A. Koutroulis**, L. Marchi, C. Oprea, E. Preciso, D. Sempere-Torres, G. Stancalie, J. Szolgay, I. Tsanis, D. Velasco, A. Viglione, European flash flood data, Geophysical Research Abstracts, Vol. 10, EGU2008-A-07780, 2008
- (C07) **Koutroulis A.G.**, Ioannis K. Tsanis, Translating the global water cycle and climate change signals to basin-scale water resources applications. Case study: the island of Crete, Coping with Climate change in integrated Watershed Management, 30 July 2008, Kerkrade, Netherlands.
- (C06) Tsanis, I.K., **Koutroulis, A.G.**, Daliakopoulos, I., Michaelides, S., "Storm analysis and precipitation distribution of the flash flood in Almyrida basin, Crete", EGU2008 Session IS31-Flash floods: observations and analysis of atmospheric and hydrological controls, EGU, Vienna, Austria, 13-18 April 2008.
- (C05) Tsanis, I.K., **Koutroulis, A.G.**, Daliakopoulos, Harmonised Techniques and Representative River Basin Data for Assessment and Use of Uncertainty Information in Geropotamou Basin Water Resources Management, HarmoniCa, Conference European Research Input to River Basin Management, 25th - 27th September, 2007, Brussel, Belgium.
- (C04) I. N. Daliakopoulos, **A. G. Koutroulis** and I. K. Tsanis, Uncertainty assessment in historical precipitation time series, European Geosciences Union General Assembly Vienna, Austria, 02 - 07 April, Geophysical Research Abstracts, Vol. 8, 03034, 2006.
- (C03)* K. Tsanis, **A.G. Koutroulis** and I. G. Koutsogiannaki., "Simulation of the 1994 flood event in Giofyros poorly gauged basin in Crete", 9TH CONFERENCE ON ENVIRONMENTAL SCIENCE AND TECHNOLOGY - 9CEST 2005 September 1st - 3rd 2005, Rhodes island, Greece, ref no 72/09.12.04.
- (C02)* I. K. Tsanis, **A.G. Koutroulis**, K. Seiradakis, "NETWORK USE OF CHANIA ENVIRONMENTAL DATABASE WITH GIS", International Conference, Protection and Restoration of the Environment VII, Mykonos, Greece, June 28 – July 1, 2004
- (C01) V. C. Kelessidis, G. Mpandelis, **A.G. Koutroulis**, T. S. Michalakis, "Significant Parameters Affecting Efficient Cuttings Transport in Horizontal and Deviated Wellbores in Coil Tubing Drilling: A Critical Review". 1st International Symposium of the Faculty of Mines (ITU) on Earth Sciences and Engineering. 16-18 May 2002, Maslak, Istanbul, Turkey.

Other scientific publications & reports

- (SR-36) Emmanuel Nyenah, Hannes Müller Schmied & **Aristeidis Koutroulis**, REVIEWING MODEL EVALUATION TOOLS AND THEIR POTENTIAL USE FOR ASSESSING CLIMATE IMPACT MODEL OUTPUTS. COST Action PROCLIAS (CA19139), supported by COST European Cooperation in Science & Technology, pp. 20 (2021).
- (SR-35) Johannes Hunink, Alberto de Tomás, Raed Hamed, Matteo Giuliani, Sara Suárez, Joaquín Andreu, **Aristeidis Koutroulis**, Manolis Grillakis, Ioannis Tsanis, Abel Solera., D11.4 Demonstration and evaluation of prototype of Drought Decision Support systems. IMPREX H2020, pp. 89., (2019).
- (SR-34) Louis-Philippe Caron, Manolis Grillakis, **Aris Koutroulis**, David Lavers, Andrea Manrique, Niti Mishra, Nicky Stringer, Ioannis Tsanis, D3.3 New methods to enhance the skill of seasonal prediction systems in operational systems. IMPREX H2020, pp. 52., (2018).
- (SR-33) Johannes Hunink, Sergio Contreras, Raed Hamed, Andrea Castelletti, Matteo Giuliani, Joaquín Andreu, Abel Solera, Sara Suárez-Almiñana, **Aristeidis Koutroulis**, Manolis Grillakis, Ioannis Tsanis, Gabriela Guimarães Nobre, Jeroen Aerts and Philip J Ward, David García-León, Bettina Baruth, D11.2 Index-based drought risk assessment: Exploration of drought indices and agricultural impacts. IMPREX H2020, pp. 103., (2018).
- (SR-32) Warren, R, Alfieri, L., Burke, S., Feyen, L., Forstenhaeusler, N., Nikoloulopoulos, A., Price, J., South, A., Wallace, C., Tsanis, A., Papadimitriou, L., **Koutroulis, A.**, Deliverable: 4.4. "Report on different degrees of adaptation measures applied in the impact models". HELIX FP7 Deliverable 4.4., pp. 87. (2017).
- (SR-31) Lorenzo Alfieri, **Aristeidis Koutroulis**, Michalis Vousdoukas, Luc Feyen, Lamprini Papadimitriou, Ioannis Tsanis, Policy brief summarising assessment of impacts of SWLS in Europe including uncertainties. HELIX FP7 Deliverable 7.6., pp. 8., (2017).
- (SR-30) Ioannis Tsanis, **Aristeidis Koutroulis**, Lamprini Papadimitriou, Lorenzo Alfieri, Luc Feyen, Francesco Dottori, Detailed assessment of biophysical and socio-economic impact of regional climate change and extremes in Europe based on new high-resolution RCM projection. HELIX FP7 Deliverable 7.5., pp. 105., (2017).
- (SR-29) Johannes Hunink, Alberto de Tomás, Yu Li, Andrea Castelletti, Matteo Giuliani, Federico Giudici, Sara Suárez, Joaquín Andreu, **Aristeidis Koutroulis**, Manolis Grillakis, Abel Solera., D11.1 Prototype design of drought Decision Support Systems. IMPREX H2020, pp. 107. (2017).
- (SR-28) Pierre Friedlingstein, Catherine Morfopoulos, Richard Betts, Nicole Forstenhaeusler, Jeff Price, Rachel Warren, Gustavo Naumann, Lorenzo Alfieri, Luc Feyen, Ioannis K. Tsanis, Lamprini Papadimitriou, **Aristeidis Koutroulis**. Provision of impact simulations based on the new AGCM time slice simulations for 3 SWLs. HELIX FP7 Deliverable 4.5., pp. 56., (2017).
- (SR-27) Lorenzo Alfieri, Hylke Beck, Gustavo Naumann, Philippe Ciais, Jingfeng Chang, Tsanis I.K., L. Papadimitriou, **A.G. Koutroulis**, Katja Frieler, Anselmo Garcia Cantu Ros, Fang Zhao, Catherine Morfopoulos, The sensitivities of impact models to climate drivers as well as their ability to represent effects of extreme events. HELIX FP7 Deliverable 4.3, pp. 75., (2016).
- (SR-26) Lorenzo Alfieri, Luc Feyen, Alessandra Bianchi, Michalis Vousdoukas, Lorenzo Mentaschi, Ioannis Tsanis, **Aristeidis Koutroulis**, Lamprini Papadimitriou, Manolis Grillakis. Improved assessment of impacts in Europe for SWLs including uncertainties. HELIX FP7 Deliverable 7.4, pp. 128., (2016).
- (SR-25) Tsanis I.K., **A.G. Koutroulis**, M.G. Grillakis. Cross sectoral impacts on water availability at +2°C and +3°C for east Mediterranean island states: the case of Crete. IMPACT2C FP7. Deliverable 11.1., pp. 35. (2015).
- (SR-24) Alfieri L., I.K. Tsanis, L. Papadimitriou, **A. Koutroulis**, M. Grillakis, L. Feyen, M. Vousdoukas, E. Voukouvalas. Evaluation of regional impact models against observed trends or recent extreme events. Deliverable: 7.3, pp. 53., (2015)

- (SR-23) Alfieri L., I.K. Tsanis, L. Papadimitriou, **A. Koutroulis**, M. Grillakis, L. Feyen, M. Vousdoukas, E. Voukouvalas, A. Kitous, M. Rozsai, J. Carlos Ciscar, X. Wang, P. Ciais. Fast-track assessment of biophysical impacts and selected socio-economic impacts at 4°C using EURO CORDEX RCM projections. Deliverable: 7.2, pp. 108., (2015).
- (SR-22) Alfieri L., I.K. Tsanis, L. Papadimitriou, **A. Koutroulis**, M. Grillakis, L. Feyen, M. Vousdoukas, E. Voukouvalas, A. Kitous, M. Rozsai, J. Carlos Ciscar, X. Wang, P. Ciais. HELIX FP7. "Overview of existing observed climate and impacts data for Europe, example extreme events, and adaptation strategies" Deliverable: 7.1, pp. 50. (2014)
- (SR-21) Pretenthaler F., H. Albrecher, J. Erik Haugen, .I Tsanis , P. Asadi, M. Craveiro , A. Damm, M. Grillakis, M. Hofer, D. Kortschak, **A. Koutroulis**, O. Landgren, N.. "Value at Risk in EU27: floods, the change of weather risk to electricity, tourism demands" IMPACT2C FP7. Deliverable 9.1., pp. 41. (2014).
- (SR-20) Tsanis I.K., M.G. Grillakis, **A.G. Koutroulis**, "Maps showing the climate change impacts, at +2°C and +1.5°C for each sector" IMPACT2C FP7. Deliverable 6.1., pp. 29. (2014).
- (SR-19) Tsanis, I.K., M.G. Grillakis, **A.G. Koutroulis**. "High resolution future solar energy projections for the island of Crete". ECLISE collaborative FP7 research project under the Environment Programme of the European Commission, Deliverable 6.15. (2014).
- (SR-18) Tsanis, I.K., **A.G. Koutroulis**, M.G. Grillakis. "Climate change effect on hydro-meteorologic variables related to water budget and precipitation extremes for the region of Crete". ECLISE collaborative FP7 research project under the Environment Programme of the European Commission, Deliverable 5.5. (2014).
- (SR-17) Tsanis, I.K., M.G. Grillakis, **A.G. Koutroulis**. "Rainfall and Temperature extremes for Greek Cities". ECLISE collaborative FP7 research project under the Environment Programme of the European Commission, Deliverable 5.5. (2014).
- (SR-16) Sobolowski S., P. Lind, **A. Koutroulis**, L. Marien, E. Kjellström, B. van Ulft, B. Eggert , Y. Chen, G. Lenderink, D. Lindstedt and I.K. Tsanis. "Simulating extreme precipitation in the island of Crete with non-hydrostatic high-resolution RCMs". ECLISE collaborative FP7 research project under the Environment Programme of the European Commission, Deliverable 2.4. (2014).
- (SR-15) Tsanis, I.K., **A.G. Koutroulis**, Jacob, D. Moseley, C. & Remedio A. "Assessment of additional regional feedbacks and their regional impacts in the Mediterranean (Crete case study)", COMBINE-FP7 ENV.2008.1.1.4.1: New components in Earth System modeling for better climate projections, deliverable D8.7b, (2013).
- (SR-14) Tsanis, I.K., **A.G. Koutroulis**. "Evaluation of present-day estimates of solar radiation over Crete". ECLISE collaborative FP7 research project under the Environment Programme of the European Commission, Deliverable 6.14. (2012).
- (SR-13) Tsanis, I.K., **A.G. Koutroulis**. "WATER ASSESSMENT REPORT FOR CRETE BASINS" WATCH FP6, Global Change and Ecosystems. Deliverable 6.4.2a., Technical Report No 30. Translating the global water cycle system to basins for water resources applications (2011).
- (SR-12) Anne F. van Loon, Henny A.J. van Lanen, Lena M. Tallaksen, Martin Hanel, Miriam Fendeková, Andrej Machlica, Gonzalo Sapriz, **Aristeidis Koutroulis**, Marjolein H.J. van Huijgevoort, Jorge Jódar Bermúdez, Hege Hisdal, Ioannis Tsanis. WATCH FP6 Technical Report No 31: PROPAGATION OF DROUGHT THROUGH THE HYDROLOGICAL CYCLE (2011).
- (SR-11) Marjolein H.J. van Huijgevoort, Anne F. van Loon, Martin Hanel, Ingjerd Haddeland, Oliver Horvát, **Aristeidis Koutroulis**, Andrej Machlica, Graham Weedon, Miriam Fendeková, Ioannis Tsanis, Henny A.J. van Lanen, Technical report No. 26 (44 pages): Simulation of low flows and drought events in WATCH FP6 test basins: impact of climate forcing datasets. March 18, 2011
- (SR-10) Fulco Ludwig, Miguel Candel, Jesús Carrera, Miriam Fendekova, Ingjerd Haddeland, Stanislav Horacek, Jorge Jódar, **Aristeidis Koutroulis**, Vicente Navarro, Ioannis Tsanis. WATCH FP6 Technical Report Number 10: Preliminary Water Assessment Reports of the test basins of the WATCH Project, 2009.

- (SR-09) Tsanis, I.K., Daliakopoulos I.N., **Koutroulis, A.G.**, "Modelling Tools and Methods. The effect of scale on estimating the impact of global change on water resources. The case of Crete." SCENES FP6 - Water Scenarios for Europe and Neighboring States, 2009.
- (SR-08) Tsanis, I.K., Koutsogiannaki I.G., Daliakopoulos I.N. and **Koutroulis A.G.**, "Development of protocols for assessing data uncertainties variability and feedbacks". SCENES FP6 - Water Scenarios for Europe and Neighboring States, 2008.
- (SR-07) Borga M., G. Delrieu, G. Bloschl, E. Gaume, D. Sempere-Torres, I. K. Tsanis, **A. G. Koutroulis**, E. N. Anagnostou, J. Szolgay, G. Stancalie, M. Barbuc, P. Samuels, "Report on collation of detailed data from major flash flood events". HYDRATE - Hydrometeorological data resources and technologies for effective flash flood forecasting (Specific Targeted Research Project – FP6), 2008.
- (SR-06) Tsanis, I.K., **A.G. Koutroulis**. "Analysis of flash flood regimes in Crete" Intermediate Report, HYDRATE - Hydrometeorological data resources and technologies for effective flash flood forecasting (Specific Targeted Research Project – FP6), 2008.
- (SR-05) Tsanis, I.K., **A.G. Koutroulis**, I.N. Daliakopoulos. "Geropotamou basin, Greece – A Harmonib Case Study" Final Report, Harmonized Techniques and Representative River Basin Data for Assessment and Use of Uncertainty Information in Integrated Water Management (HarmoniRiB), European Community EC-RS (Energy, Environment and Sustainable Development Key Action 1: Sustainable Management and Quality of Water, 2006.
- (SR-04) Tsanis, I.K., **A.G. Koutroulis**, I.N. Daliakopoulos. "Geropotamou River Basin Data Report", Harmonized Techniques and Representative River Basin Data for Assessment and Use of Uncertainty Information in Integrated Water Management (HarmoniRiB), European Community EC-RS (Energy, Environment and Sustainable Development Key Action 1: Sustainable Management and Quality of Water, 2006.
- (SR-03) Tsanis, I.K., **A.G. Koutroulis** "Estimation of Water Resources of Geropotamou and Keritis Basins", Best Water Use Innovative Practices towards a Sustainable Water Resources Management (BEWARE), Crete Innovative Region (CRINNO), 2005.
- (SR-02) Tsanis, I.K., Seiradakis, K., **Koutroulis A.G.** "Data processing and results", Best Water Use Innovative Practices towards a Sustainable Water Resources Management (BEWARE), Crete Innovative Region (CRINNO), 2005.
- (SR-01) Tsanis, I.K., Seiradakis, K., **Koutroulis A.G.** "Digital data (topographic, satellite) and equipment.", Best Water Use Innovative Practices towards a Sustainable Water Resources Management (BEWARE), Crete Innovative Region (CRINNO), 2005.

TEACHING EXPERIENCE

2001-2022 Teaching, and co-lecturing a number of courses at the School of Environmental Engineering Technical University of Crete, Greece:

- *Hydraulics II* Co-lecturing: 9 semesters (ERASMUS)
- *Hydraulic Works* Teaching: 4 semester and teaching assistantship 5 semesters
- *Hydrology* Co-lecturing: 1 semester Teaching assistantship: 4 semesters
- *Introduction to Programming* Teaching: 1 semester
- *Fluid Mechanics* Laboratory: 4 semesters
- *Water Supply and Drainage* Teaching assistantship and tutorial exercises: 4 semesters
- *Environmental Hydraulics* Teaching assistantship and tutorial exercises: 5 semesters
- Numerical Methods in
- Environmental Engineering
- Coastal Engineering Teaching tutorial exercises: 1 semester
- Teaching tutorial exercises: 1 semester

- Computational Hydraulics Teaching: 1 semester
- Hydraulics for Teaching: 1 semester
- Environmental Engineers
- Borehole Engineering Compilation of educational material for the course

THESES AND COMMITTEES

Theses assistantship and co-supervision

- 2021 Doctoral Degree: «Impact of climate change on water resources and adaptation to extremes» Sofia Sarchani.
- 2018 Master Degree: «Sensitivity analysis of hydrological modeling parameters for flash flood simulation» Sofia Sarchani.
- 2017 Doctoral Degree: «A study of the effects of high-end climate change scenarios on the global hydrological regime.» Lamprini Papadimitriou.
- 2016 Doctoral Degree: «Extreme Hydro-meteorologic Phenomena in Eastern Mediterranean» Vasiliki Iordanidou.
- 2014 Doctoral Degree: «Climate change impact in basic hydrological parameters and the role of climate model biases» Manolis Grillakis.
- 2013 Doctoral Degree: «Spatiotemporal Drought Analysis and Climate Change impact on Hydrometeorological variables for the island of Crete» Aggeliki – Eleni Vrochidou.
- 2013 Diploma Degree: «Climate change impact analysis to the hydrology of the Giofiro river basin », Anastasios Skitzis.
- 2013 Diploma Degree: « Climate change impact on Photovoltaic Energy Output: The case of Greece », Ioanna Panagea.
- 2013 Diploma Degree: «Climate change and Tourism. Impact of a global warming of 2 degrees to the Mediterranean summer tourism», Konstantinos Konstantopoulos.
- 2010 Master Degree: «Stochastic analysis of the 17 October 2006 flash flood event in the Almirida river basin», Nikolaos Papastefanakis.
- 2009 Master Degree: «Spatiotemporal analysis of droughts for the island of Crete», Aggeliki – Eleni Vrochidou.
- 2009 Master Degree: «Post event flash flood survey. Simulation of the 17/10/2006 flash flood event in the Almirida river basin», Sotirios Tsitsilonis.
- 2005 Master Degree: «Estimation of water budget and water resources management of the Keritis river basin», Kiki Chatzivaggelou.
- 2005 Diploma Degree: «Analysis of the water budget of the Keritis river basin», Sotirios Tsitsilonis.
- 2006 Diploma Degree: «Mapping and simulating the surface runoff of the Keritis river basin », Manolis Grillakis.

Evaluation and advisory committees

- 2019 Doctoral Degree: «Impact of climate change on water resources and adaptation to extreme events». Sofia Sarhani.
- 2018 Master thesis: «Sensitivity analysis of hydrological flood event simulation & flood wave simulation in a small hydrological basin» Sofia Sarchani. (Member of the evaluation committee).
- 2017 Doctoral Degree: «A study of the effects of high-end climate change scenarios on the global hydrological regime» Lamprini Papadimitriou. (Member of the tripartite advisory and the evaluation committee).

- 2017 Master thesis: «Simulation of Greenhouse Tomato Growing with SALT MED Model: Scenarios of Irrigation Quality and Climate Change» A. Apostolakis. (Member of the evaluation committee).
- 2017 Diploma Degree: « Cost-benefit analysis of rainwater collection tank construction for greenhouse irrigation», C. Nevras. (Member of the evaluation committee).
- 2016 Doctoral Degree: «Extreme Hydro-meteorologic Phenomena in Eastern Mediterranean» Vasiliki Iordanidou. (Member of the tripartite advisory and the evaluation committee).
- 2016 Master thesis: «Greenhouse irrigation on salinisation affected soils» P. Pappa. (Member of the evaluation committee).
- 2013 Diploma Degree: «Climate change impact analysis to the hydrology of the Giofiro river basin», Anastasios Skitzis. (Member of the evaluation committee).
- 2013 Diploma Degree: « Climate change impact on Photovoltaic Energy Output: The case of Greece», Ioanna Panagea. (Member of the evaluation committee).

ORGANIZATIONAL AND ADMINISTRATIVE EXPERIENCE

- 2020-2022 Associate Editor in Climate Services Journal, Elsevier. Fields: Hydroclimatology, Environmental Hydraulics, Hydrological Extremes, Climate Change Impacts and Adaptation, Water Resources.
- 2020-2021 Editorial Board Member, Frontiers Water, Water MDPI
- 2019 Co-Convener of the session «Data-mining and methods for modeling and assessing state and fate of soil water» for the international conference TERRAenVISION, Barcelona, 2 – 7 Sept 2019.
- 2018-2019 Co-Guest Editor for the Special Issue "Water Resources and Climate Change" Resources journal MDPI. 2018-2019.
- 2018 Co-Convener of the session «Data-mining and methods for modeling and assessing state and fate of soil water» for the international conference TERRAenVISION, Barcelona, 29 Jan–2 Feb 2018.
- 2006-2018 Administration, organization and technical-financial management of fourteen (14) European and national research programs of the Water Resources Management and Coastal Engineering Laboratory (coordinator Dr. Ioannis K. Tsanis.)
- 2016-2018 Management of the MODIP evaluation Information System for the School of Environmental Engineering and management of the Students Evaluation reports.
- 2006-2018 Member of the tendering committees for the Procurement Department of TUC and the Special Research Funds Account.
- 2014-2018 Regular Member of the receipt committee of the Division of Environmental Hydraulics and Geoenvironmental Engineering, School of Environmental Engineering.
- 2016 Organization of the first annual three-day meeting for the research program IMPREX - H2020 with the participation of 60 partners from Europe, Australia and the USA The conference was held at the Panorama Hotel, Kalamaki, Chania.
- 2014-2015 Management of the Hellenic Authority for Higher Education (HAHE) evaluation Information System for the School of Environmental Engineering and management of the Students Evaluation reports.
- 2014 Organization of the 2nd annual three-day meeting of the research program HELIX -FP7 with the participation of 45 partners from Europe, India, Africa and Bangladesh. The conference was held in Hotel Minoa Palace, Platanias, Chania.
- 2014 Open discussion - lecture organization entitled "Climate Change above 2°C: What does it mean?" by Prof. And Dr. Richard Betts and Dr. Francois Gemenne. Auditorium Building Sciences University of Crete, October 29, 2014.

- 2013 Organization of the 2nd annual three-day meeting of the research program ECLISE -FP7 with the participation of 35 partners from Europe. The conference was held at the Minoa Palace Hotel Platanias, Chania.
- 2007 Organization of the first annual three-day meeting of the research program HYDRATE -FP6 with the participation of 30 partners from Europe. The conference was held at the Panorama Hotel, Kalamaki, Chania.
- 2005 Organization of the third annual five-day meeting of the research program HarmoniRiB - FP5 with the participation of 28 partners from Europe. The conference was held in the Samaria Hotel, Chania.

PRESENTATIONS/ SHORT SCIENTIFIC MISSION

- 2022 Cross-sectoral ISIMIP and PROCLIAS, 16-19 May 2022 at the Potsdam, Germany
- 2021 Cross-sectoral ISIMIP and PROCLIAS online workshop, 11-15 January 2021
- 2020 PROCLIAS COST Action online kick-off meeting, 27-28 October 2020
- 2020 Cross-sectoral ISIMIP online Workshop 15-18 June 2020
- 2019 Sofia, Bulgaria, FIRElinks COST Action, 1st G.A. & 2nd MC meeting, 8-9 October, 2019.
- 2019 Heraklion, Greece, 2nd International Conference ADAPTtoCLIMATE, 24-25 June, 2019.
- 2019 Paris, France, cross-sectoral ISIMIP workshop, 4 - 7 June, 2019.
- 2019 Montpellier, France, MISTRALS workshop on droughts, Joint workshop of the HYMEX, SICMED, BIODIVMEX and IMPACTCC actions. 24-26 April, 2019.
- 2019 Milan, Italy, 1st MedECC Assessment Report (MAR1) Lead Author Meeting 4-7 March 2019.
- 2018 Frankfurt, Germany. ISIMIP2b Cross-sectoral global water paper-writing workshop. 30 July – 1 August 2018.
- 2018 Vienna, Austria. EGU General Assembly 2018, 8 – 13 April 2018
- 2018 Barcelona, Spain, TERRAenVISION Environmental Issues Today: Scientific Solutions for Societal Issues. 29 Jan – 2 Feb 2018.
- 2017* Exeter, UK. Final GA HELIX-FP7. 3-5 October 2017.
- 2017* Reading, UK. IMPREX-H2020 2nd Annual meeting. 31 May -2 June 2017.
- 2016* ISPRA-JRC, Italy. Coordination Meeting Sectoral Survey “Agriculture and Drought” – IMPREX-H2020. 27-28 June 2016.
- 2016 Potsdam, Germany. ISIMIP Inter-sectoral Impact Model Intercomparison Project. 22-24 June 2016.
- 2015* Liege, Belgium. HELIX-FP7 2nd Annual meeting. 14-17 September 2015.
- 2014* Exeter, UK. HELIX-FP7 kick-off meeting. 29-31 January 2014.
- 2014* Valencia, Spain. RECARE-FP7 kick-off meeting. 13-17 January 2014.
- 2013* Wageningen, Netherlands. Final meeting of COMBINE-FP7. 2-4 October 2013.
- 2013 London, UK. Proposal writing meeting HELIX-FP7. 9-10 January 2013.
- 2012* Laxenburg, Austria. IMPACT2C-FP7 General Assembly Meeting. 12-19 November 2012.
- 2012* Norrkoping, Sweden. ECLISE-FP7 General Assembly Meeting. 6-7 March 2012.
- 2011* Wageningen, Netherlands. ECLISE-FP7 User workshop. 7-8 September 2011.
- 2009* Wageningen, Netherlands. WATCH-FP6 General Assembly Meeting. 15-18 March 2009.
- 2009* Grenoble, France. HYDRATE-FP6 third mid-term meeting. 12-13 November 2009.
- 2008 Kerkrade, Netherlands. Summer school «Coping with Climate change in integrated Watershed Management». 29 June – 11 July 2008.

- 2007* Bucharest, Romania. HYDRATE-FP6 first mid-term meeting. 29-30 March 2007.
- 2006* Brussels, Luxemburg. HYDRATE-FP6 "Uncertainty in data and models: On the way to operational use in environmental management". 21 September 2006
- 2005 Grenoble, France. Proposal writing meeting HYDRATE-FP6. 25 September 2005.
- 2005* Horsholm, Denmark, HarmoniRiB-FP5 General Assembly Meeting. 21-23 September 2005.
- 2004* Amsterdam, Netherlands. HarmoniRiB-FP5 Uncertainty workshop. 29 November – 1 December 2004.
- 2004* Oxford, UK, HarmoniRiB-FP5 General Assembly Meeting. 27 September – 1 October 2004.
- 2004* Bari, Italy, HarmoniRiB-FP5 Midterm Technical meeting. 24-28 May 2004.
- 2004* Leipzig, Germany, HarmoniRiB-FP5 General Assembly Meeting. 20-23 January 2004.
- 2003* Albacete, Spain, HarmoniRiB-FP5 General Assembly Meeting. 7-10 May 2003.

* *In the context of research programs*

HONORS

- Listed in the 2% top scientists in the field of environmental engineering for the year 2019 according to the science-wide author databases of standardized citation indicators as published by the Stanford University <http://dx.doi.org/10.17632/btchxktzyw.2>
- Contributing Author for the IPCC AR6 WGII Chapter 4 – Water.
- Lead Author for the chapter “WATER” of the upcoming Mediterranean First Assessment Report (MAR1) of MedECC.
- Member of the working group for the preparation of the Regional Climate Change Adaptation Plan for the Region of Crete.
- Review Editor on the Editorial Board of Frontiers in Water and Climate
- Member of the Editorial Board for Hydrology journal, MDPI.
- J34 published in Earth's Future, is one of the journal's top downloaded papers amongst articles published between January 2017 and December 2018. The work generated immediate impact and visibility, contributing significantly to the advancement of the field.
- Figure 3.15 of the 3rd chapter (pp. 45) of the special report on the impacts of global warming of 1.5 °C above pre-industrial levels report (IPCC SR15) and the corresponding text coming from J36 was a basic reference of the report for the section «Runoff and fluvial flooding».
- The journal publications J11, J23, J31, J33, J34 and J36 has been cited in the (IPCC SR15) 2018.
- J01 and J03 have received enough citations to place them in the top 1% of the academic field of Environmental Science articles of the same age and document type (Source: Scopus).
- J04 and J08 are cited in the Intergovernmental Panel on Climate Change (IPCC) Report Climate Change 2014: Impacts, Adaptation and Vulnerability Part B: Regional Aspects – Europe.
- Environmental Engineering Master Program Scholarship, Technical University of Crete, Greece
- 2nd Award for the best undergraduate thesis from the Technical Chamber of Greece, Association of Professional Engineers, Greece.
- Scholarship excellence at graduation, Metropolis of Chania.
- Hazirakis Scholarship for undergraduate studies at Mineral Resources Engineering, TUC, Greece.
- Scholarship for the fourth best score in Mineral Resources Engineering undergraduate program during the first year.

MEMBERSHIP

- [PROCLIAS](#) - Process-based models for climate impact attribution across sectors
- [FIRElinks](#) – Fire in the Earth System: Science & Society. Management Committee Substitute
- Mediterranean Experts on Climate and environmental Change ([MedECC](#))
- [SDG ASSESSMENT CORE GROUP](#) of Sustainable Water Future Programme
- [ISI-MIP](#). The Inter-Sectoral Impact Model Intercomparison Project.
- [International Association of Hydrological Sciences](#).
- [Climate Knowledge Hub](#).
- [HEPEX](#) - Hydrologic Ensemble Prediction Experiment
- [EURO-CORDEX](#) (European Climate Change Research in Europe)
- [European Drought Center \(EDC\)](#).
- Greek Committee for Water Resources Management.
- Member of the Technical Chamber of Greece (TCG)

EXPERT EVALUATOR

- 2021 External Expert HORIZON-CL6-2021 (Land, ocean and water for climate action)
- 2021 External Expert Marie Skłodowska-Curie Postdoctoral Fellowships, MSCA-PF 2021
- 2021 External Expert Horizon Green Deal
- 2021 Monitoring Expert Horizon 2020- Executive Agency for Small & Medium-sized Enterprises (EASME).
- 2020 External Expert H2020 - MARIE SKŁODOWSKA-CURIE INDIVIDUAL FELLOWSHIPS -2020
- 2020 Expert reviewer for the Dutch Research Council (NWO) Domain Science in the framework of our Vici Talent Scheme.
- 2020 Expert evaluation of research proposals on environmental research as commissioned by the National Science and Technology of the Ministry of Education and Science Center of the Republic of Kazakhstan.
- 2019 External Expert H2020 - MARIE SKŁODOWSKA-CURIE INDIVIDUAL FELLOWSHIPS -2019
- 2018 External Expert H2020 - MARIE SKŁODOWSKA-CURIE INDIVIDUAL FELLOWSHIPS -2018
- 2018 Expert reviewer IPCC Special Report on 1.5°C Climate Change and Land (CCL).
- 2017 External Expert COST Open Call OC-2017-1
- 2017 Expert evaluation of research proposals on environmental research as commissioned by the National Science and Technology of the Ministry of Education and Science Center of the Republic of Kazakhstan.
- 2017 Expert reviewer IPCC Special Report on 1.5°C Global Warming (SR15).
- 2014 Evaluation of Chapters 3-Freshwater resources and 23-Europe of the Intergovernmental Panel most recent report on Climate Change (IPCC).
- 2014 Expert evaluation of research proposals on environmental research as commissioned by the National Science and Technology of the Ministry of Education and Science Center of the Republic of Kazakhstan.
- 2011 Expert assessment for chapters 1,3,4 and 5 of the Intergovernmental Panel Special Report on Climate Change (IPCC) entitled "Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX) and the related Summary for Policy Makers.

For the Journals:

- *Nature Reviews Earth & Environment*
- *Nature Communications*
- *Hydrology and Earth System Sciences*
- *Nature Scientific Reports*
- *Journal of Hydrology*
- *Journal of Hydrometeorology*
- *Journal of Geophysical Research*
- *Journal of Applied Meteorology and Climatology*
- *Science of the Total Environment*
- *Climatic Change*
- *Natural Hazards and Earth System Sciences*
- *Journal of Hydroinformatics*
- *Ecohydrology & Hydrobiology*
- *Advances in Meteorology*
- *Water*
- *Hydrology*