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Nota di contenuto	Tsunami danger prediction by PC-based fast numerical modeling -- A Dynamic Tracking Model for Strong Cyclonic Vortices over Complex Topography -- Estimations of the Wavelength-Dependent behavior of ASSA in the Troposphere Region above Sukhothai Province, Thailand -- Analysis and Forecasting of Geomagnetic Storms Using Machine Learning -- Weather Data Analysis with Predictive Modelling for Floods in Muvumba Catchment of Rwanda -- XMed-Dry network: results of the first year and a half of sampling in Lecce -- Modeling Incoherent Scatter Radar Electron Density Profiles using Data Ingestion of Simultaneous Ionosonde Measurements -- A comparative study of ionospheric parameters at both hemispheres during the decline phase of 24th solar cycle -- Machine learning-based approach for detecting earthquake precursor from ionospheric time series data at anomaly crest station -- Solar Radiation Forecasting with Regression Tree -- Ground-based estimation of Global Solar Irradiance using Meteosat images - Evaluation with ground measurements -- Marine forecast for

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between 1991 and 2011 -- High-temperature spectroscopic data for exoplanetary studies: the e-PYTHEAS Project -- Benzo[a]pyrene (BaP) and benzo[e]pyrene (BeP) in aerosols atmosphere in Algiers -- Background Air Monitoring: Mercury Emissions Sources Revealing -- The utility of the Temperature-Vegetation Water Stress Index in detecting and mapping drought severity -- Hydrological evaluation of satellite products estimating rainfall in the Assaka watershed (South of Morocco) -- Short-term vascular plant biodiversity assessment in burned and restored forest areas of Greece -- Spatial patterns of plant species diversity in Northwestern Caucasus -- Carbon sequestration against agricultural production on example of south Russian steppes -- Distribution and carbon balance of coastal wetlands in conditions of periodic marine surges and fires: on example of the River Don Delta -- Soil organic carbon and agroforestry as integrated agricultural system in Brazil: State-of-the-art, food, health, and systematic analysis -- 13C-DOC and 13 in pore water and bottom sediments of thermokarst lakes in discontinuous permafrost of Western Siberia -- Application of the ECOSSE- model to estimate greenhouse gas emissions (GHG) from a Scottish grassland -- The importance of green covers in Mediterranean crops using different analysis methods and geoprocessing tools -- Potential for the microbial degradation of lake sediments in the Arctic and maritime Antarctic: a case incubation study -- A Bioclimatic Index for Estimating Frost Damage in Avocado Trees: Chile as a Case Study for the Mediterranean Climates -- Assessment of cereal yields under climate change based on RCA 4 regional climate model simulations -- The impact of sedimentation ponds of the former Solvay soda plant in Krakow on the chemistry of the Wilga River and changes after road construction investment -- Sustainable Blue Economy in inland surface waters: Case study of a Greek lake in the Eastern Mediterranean -- Oxygen and hydrogen isotopic composition of pore waters of thermokarst lakes in discontinuous permafrost, Western Siberia -- Mercury metal in Lisa Ramada and Lucioperca lucioperca from Sidi Salem freshwater reservoir (Northern Tunisia).-The problem of heavy metals in the marine sediments of the Mediterranean Sea: a crucial moment to change the trend -- Isotherm Studies on the Removal of Cationic Dye from Aqueous Solutions -- Intrauterine fetal retardation in cows is associated with a trace elements deficiency in the Lower Volga Region, Russia -- Flood inundation areas Mapping using HEC-RAS model of Wabash River, United States of America.-Flood Modeling Using Easyfit and HEC-RAS: A Case Study of Kzlrmak Delta -- Flood inundation areas Mapping using HEC-RAS model of Wabash River, United States of America -- Determination of Flood Areas of Samsun Kürtün River with the Help of Hydraulic Models-GIS-Remote Sensing -- Regionalization of precipitation and estimation of flash flood flows for ungauged high Andean basins -- Contribution to the Method for Evaluating Maximum Flow Rates for Sizing Flood Protection Structures in Algeria -- Correlative analysis of multisource hydrologic measurements and small pelagic fishing statistics along the Algerian coast -- A Geohydrological Mapping of the Modder River Catchment of the Upper Orange River System of Southern Africa -- Homogeneity and trend analysis of seasonal precipitation data: A case study in Kzlrmak Delta (Samsun, Bafra), Turkey -- Assessing the Impacts of Climate Change on Stream Flow and Discharge in the Cedar River Using HEC-RAS Modeling and Future Climate Scenarios -- Quantify the Hydrological Impact of Climate Change using the Regional Climate Model (case study on Ribb Watershed, Ethiopia) -- Hydrological Resilience in the Tarqui River Basin: Modeling of Climate Change Scenarios through Hydro-BID -- Figuring out Suitable Locations for

Artificial Groundwater Recharge Based on AHP-ANN and Electrical Resistivity Survey -- Urban hydrogeology and groundwater management – a Portuguese case study -- Analytic Hierarchy Process and GIS for Groundwater Potential Assessment in Kano State of Northern Nigeria- Multi-criteria decision analysis approach for groundwater potential mapping of karstic aquifers (Tlemcen mountains, Nord-West Algeria) -- A concept for the application of integrated digital technologies to enhance future intelligent groundwater management systems : ILMA Solution- Spatial and Temporal Characterization of Fluoride and Arsenic in the Southern Part of the Aguascalientes Valley Aquifer, Mexico- Hydrogeology Characterization of Post-Mining Earth's Surface Deformation within the Carpathian Potash Mines, Stebnyk Deposit -- A Prototype Design and Implementation of a Real-time, Rainfall-based Groundwater Level Monitoring System Using the Internet of Things -- The use of experimental semivariograms to remove the trend component in groundwater elevation data: Case of Mahdia shallow aquifers, Tunisia -- An overview.

Sommario/riassunto

This edited book is based on selected papers at the 3rd MedGU Annual Meeting, Istanbul 2023. It spans a large spectrum of atmospheric, ecological, and hydrological topics, and presents newest observations, simulations, analyses and predictions mainly relevant to circum-Mediterranean Regions. This book shares new insights into dynamical evolutions of atmospheric, ecological, and hydrological processes and improved practices in sustainable environment management. It will be of interest to scientists, engineers, practitioners, and policymakers in the field of climatology, oceanography, ecology, biogeochemistry, hydrology, hydrogeology, and geosciences in general. Meanwhile, this book is also of great value to students and environment-related professionals for further investigations on the state of Earth systems.