**Special Session**

**on**

**Resources Security for Regional Sustainable Development**

**at**

**The 9th International Conference on Water Resources and Environment Research (ICWRER 2022)**

**Florida, United States, April 25th to 27th, 2022**

**Session Chair:**

**Huiming WANG** (Hohai University, China, [hmwang@hhu.edu.cn](about:blank))

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**Gang LIU** (Tianjin University, China, [lglhm@tju.edu.cn](about:blank))

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**Scope and Objectives:**

A secure access to clean water, affordable energy and sufficient food plays a foundational role for human survival and regional development. A high-quality development particularly raise high requirements to improve the security of these three resources. Meanwhile, the provision of these products put great pressure on our vulnerable ecosystem, which may endanger the ecological security in the long term. A coordinated management framework of the water-energy-food nexus considering ecological capacity would be of great importance in support of regional high-quality development.

This Special Session covers topics related to the coordinated management of the nexus and ecosystem services, which includes but not limited to optimal reallocation of water, energy and food resources at multiple scales, market-based incentives for efficient utilization of resources, soil and water resources in changing environments, ecosystem services perception and valuation.

**Invited Speakers:**

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| Wei He | College of Management and Economics, Tianjin University  [hwhewei\_2020@tju.edu.cn](about:blank) | Analysis of Spatial Heterogeneity and Influencing Factors of Ecosystem Services Individual Perception |
| Xuxia Li | College of Management and Economics, Tianjin University  [lixuxia@tju.edu.cn](about:blank) | Multi-Stage Cooperative Pricing Models of Cross-Regional Water Rights Trading under Uncertain Conditions |
| Xueyi Geng | College of Management and Economics, Tianjin University  [gengxueyi@tju.edu.cn](about:blank) | Inter-basin Water Resource Management in a Dynamic Supply Chain: Monopoly and Duopoly |
| Yu Zhang, Dingbao Wang | Department of Civil, Environmental and Construction Engineering, University of Central Florida, Orlando, FL USA.  [Dingbao.wang@ucf.edu](about:blank) | Evaluating land use change and rainfall variability impacts on hydrologic responses using an integrated hydrologic model |
| Yu Tan1, Poyu Zhang2, Jiannan Chen2, Boo Hyun Nam, Xiaoyun Du3, and Hefu Pu | 1Geological Engineering, Univ. of Wisconsin, Madison, WI, 53706, USA  2Civil, Environ., & Const. Engineering, Univ. of Central Florida, Orlando, FL, 32816, USA  3Department of Physics, Univ. of California at Santa Barbara, Santa Barbara, CA, 93106, USA  4Civil and Hydraulic Engr., Huazhong Univ. of Science and Technology, Wuhan 430074, China  [jiannan.chen@ucf.edu](about:blank) | Predicting hydraulic conductivity of compacted soil liner/covers using  Boosting algorithm |