

*UGAL International Conference Multidisciplinary HUB for the Higher Education
Internationalization by Means of Innovative Interaction with the Labour Market and
Society 26-27 October 2018, Galati, Romania*

**CHANGING THE SET OF PARAMETERS FOR WQI CALCULATION BASED ON
THE IDENTIFICATION OF GLOBAL MAXIMUM STATES**

**Gabriel Murariu, Lucian Georgescu, Catalina Iticescu, Valentina Calmuc,
Madalina Calmuc, Mihaela Timofti**

*Faculty of Sciences and Environment, Chemistry, Physics and Environment Department,
"Dunarea de Jos" University of Galati, Romania*

Corresponding author: gmurariu@ugal.ro

Abstract: Rivers show a higher pollution rate because they are among the most important sources of irrigation water and serve as a resource for the population remaining in basins. Due to the concentration of the population near the water courses, the possibility of pollution due to human activity is very high. In this paper we present a method of modifying and replacing some parameters from the set used for WQI calculation by using the local inversion theorem and by identifying global maxima states. The proof of our theorem and a case study are presented in this paper.

Keywords: WQI, statistical approach, correlation.

Acknowledgement: This work was supported by the project "Strategy and actions for preparing the national participation in the DANUBIUS-RI Project" acronym "DANS" financed by the Romanian Ministry of Research and Innovation.