



## **Groundwater Contamination Described by Diffusion-Convection Model**

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**Abstract:** Water is a key driver of economic and social development while it also has a basic function in maintaining the integrity of the natural environment. However, water is only one of a number of vital natural resources and it is imperative that water issues are not considered in isolation. The impact of water pollution has a great importance and is related very closely with the others fields. Analysis of groundwater contamination may focus on the soil characteristics and site geology, hydrogeology, hydrology, and the nature of the contaminants. Water pollution occurs when pollutants are discharged directly or indirectly into water bodies without adequate treatment to remove harmful compounds. There are some different mathematical models, represented from differential equations or systems of them that govern the groundwater contamination. In this issue, we will treat the problem of the diffusion-convection 2D model for underground water pollution in an aquifer, situated in north of Tirana (Albania) with results from programming in MATLAB with finite difference method.

**Keywords:** *groundwater contamination, diffusion-convection model, finite difference method, MATLAB*

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