



## **Solution of one dimensional hydrodynamics dispersion by mesh cells**

M. Brilly

Chair of Hydraulics engineering, University of Ljubljana

Solution of one-dimensional hydrodynamics dispersion in porous media derived by mesh cells. Parameters and variables developed in non-dimensional form. Numerical actually model simulate dispersion by numerical dispersion and results are highly accurate compared with analytical solutions. Model with stagnant water in cells is also developed on same basis. Different models with chains of cells in different size successfully simulate preferential paths and chains of cells with stagnant and non-stagnant water could simulate longitudinal hydrodynamics dispersion in the porous media with different characteristics. Numerical model with interconnected mesh cells in two chains will be also presented in the paper.