

Numerical modelling of problem of wildland fire spread using software DUNE.

MAROŠ BOHUNČÁK

Slovenská technická univerzita, Stavebná fakulta

This work deals with the implementation of a second order accurate level-set method for the solution of advection equation with a given velocity field having nonzero divergence. The method is used for the modelling of wildland fire spread with respect to wind conditions. We have used the vertex-centered computational grid. The software DUNE was employed for the implementation of our model. The aim of this work is to demonstrate the capabilities of DUNE and to compare two options of wildland fire spread modelling.