

## Modeling the Plant Effect on Soil Erosion by Water

Stelian Ion, Ștefan-Gicu Cruceanu and Dorin Marinescu

*"Gheorghe Mihoc - Caius Iacob" Institute of Mathematical Statistics and Applied Mathematics of  
Romanian Academy, Bucharest, Romania*

e-mail: ro\_diff@yahoo.com, stefan.cruceanu@ima.ro, dorin.marinescu@ima.ro

Soil erosion, by water agent, is understood as a moving process of a certain quantity of soil particles from a soil surface point to another point. The presence of the plants strongly affect the erosion process, the plant stem interact with the water motion and the roots modify the physico-chemical properties of the soil. To take into account the plant effect we build a model by coupling the Saint-Venant type equations for water dynamics with a Hairsine-Rose type model for soil erosion. In this talk we analyse, analytically and numerically, the sensibility of the model with respect to the plant parameters.

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