

The Streamflow Modelling by Use of GR4J model. Ourika Basin Case

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This study has like objective to model the hydrological behavior of mountainous basin atlasique characterised by a semi arid climate: watershed of Ourika. The modeling of this basin characterized by a space-time heterogeneity, requires the development of a simple, robust tool with a low density of parameters. For this reason which are directed this study towards the family of model GR, more precisely GR4J model developed by the CEMAGREF which is a conceptual model global with tanks, functioning with the step of the daily time which are added a snow module based on the method of the degree-days. In front of all the complex climatic conditions of this basin, influencing the quality and the quantity of data input, the model is able to propose a relatively correct simulation of the flows, and seems moreover to be able extrapolated on the temporal scale.

Key words: modelling, GR4J, snow module, degree-days