



The Application of Hydraulic and Sediment Transport Models in Fluvial Geomorphology

Guest Editors:

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Deadline for manuscript
submissions:

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Message from the Guest Editors

Dear Colleagues,

After publishing the famous “Fluvial Processes in Geomorphology” in the early 1960s, the work of Luna Leopold, Gordon Wolman and John Miller became a key for opening the door for understanding river and streams. They firstly showed the problem to geomorphologists and geographers. Later, Chang in his “Fluvial Processes in River Engineering” gave the basis for engineers, showing how this group of professionals could deal with rivers and to try to understand them. In the meantime, more decent studies have been published. Many of them started to combine fluvial geomorphology knowledge and river engineering needs, such as “Tools in Fluvial Geomorphology” by G. Mathias Kondolf and Hervé Piégay; or even more focused on river engineering tasks, such as “Stream Restoration in Dynamic Fluvial Systems: Scientific Approaches” by Andrew Simon, Sean Bennett, and Janine Castro. Finally, Luna Leopold summarized rivers and streams morphologies in a beautiful “A view of the river”. It appears that we continue to explore the subject in the right direction. We better understand rivers and streams and we can find, as engineers and fluvial geomorphologists, some tools also help to make rivers alive. However, there is still a hunger for more scientific tools that we could use to understand more about rivers, to aide in having healthy streams and rivers with a high biodiversity in the present world, which has started to face water scarcity.





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Thus, the aim of this of this Special Issue is to improve knowledge of our streams and rivers, showing how modeling can help (or disturb) in understanding fluvial processes. There have already been attempts, showing the cooperation between hydraulic engineers and fluvial geomorphologists. This Special Issue is directed to show how we could further serve our rivers using different kinds of modelling: Computer models, conceptual models, intellectual models, sophisticated software and/or analytical models. Thus, we seek works that help to build such tools, showing what we are already done, and to also show what direction we are supposed to move towards in the future for the sake of protecting our streams and rivers. Most of all, this Special Issue is directed to practical and theoretical platforms for the discussion of our understanding of rivers. It is not only for our professionals but also for the students we teach to prepare for continuation of such important work for all the people in the world. Thank you in advance for your very important contributions.

Prof. Dr. PE Artur Radecki-Pawlik

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