



Presentation of the goals and first results of the Swiss National Science Foundation research project

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Presentation of the goals and first results of the Swiss National Science Foundation research project "Reconstruction of the genesis, process and impact of major pre-instrumental flood events of major Swiss rivers including a peak discharge quantification"

Abstract

The reconstruction of extreme hydrological events of the period before the onset of national hydrological gauge measurements (pre-instrumental period) is one of the main goals of this research project. Long-term series of reconstructed peak discharges of pre-instrumental flood events of main Swiss rivers (Aare, Limmat, Reuss, and Rhine Rivers) is another main topic of the project. Furthermore the reconstructed pre-instrumental peak discharges shall be homogenised to the actual hydrological regime so that they principally become comparable with each other. A special focus shall also be put on the inaccuracies of the reconstruction assessments of pre instrumental peak discharges, so that reconstructed pre-instrumental floods may be fully included in the (statistical) assessment of recurrence periods of extreme flood events (\geq HQ 100). It is already clear that such a homogenisation procedure will be possible for the Rhine River, whereas it still needs to be verified if this will be possible for other rivers as well. Finally, the occurrence of so called "normal" flood events of the Aare and Rhine Rivers will be reconstructed, from which a better understanding about long-term normal flood frequency should be obtained (recurring periods of probably HQ1-5; to be researched).