

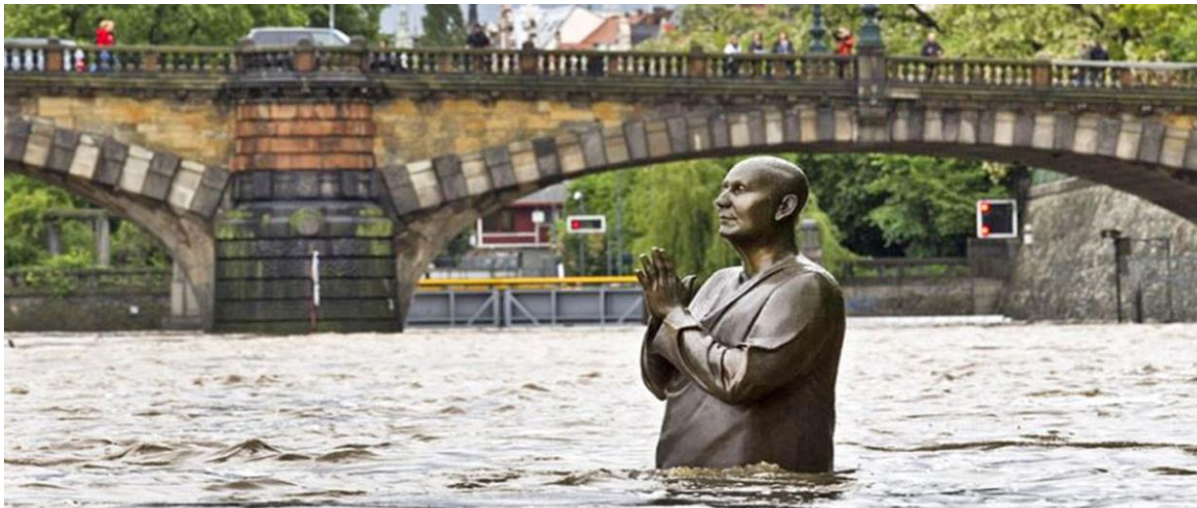
## Seminario

# Reconstruction of historic and palaeoflood events

Giovedì, 3 ottobre – ore 16:30  
Aula Arduino

Relatore: **Prof. Jürgen Herget**

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### Abstract

For historic settlement areas numerous flood level descriptions from times before the installation of river gauges are passed on, most of them are even dated. Typically, these written descriptions are qualitative. Furthermore, historic flood water levels are frequently marked at buildings and constructions. Such descriptions of flood water are rarely transferred into palaeodischarge numbers due to methodological problems. One major problem is the estimation of the cross section area due to missing information on the topography and hydraulic roughness of the floodplain and the river channel in historic times. For the historic flood level records from the cities of Cologne (River Rhine) and Prague (River Vltava) an approach to estimate peak discharge is developed. Based on historic etchings, paintings and descriptions it is possible to reconstruct the characteristics of the river channel and floodplains to estimate cross-section areas during flood events. The reconstructed data are tested by estimating peak discharges of recent floods by the application of the described method and comparing the results with measured discharge data from the gauges located at Cologne and Prague.

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