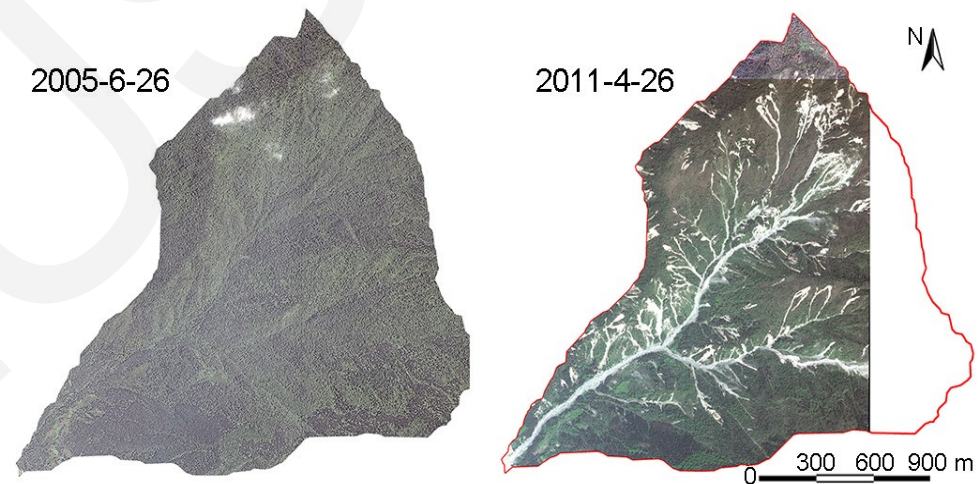


Impact of earthquake-induced-landslides on hydrologic response of a steep mountainous catchment: a case study of the Wenchuan earthquake zone

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- The damage of Wenchuan earthquake (2008, China) on underlying surface conditions
 - a large number of landslides



Remote sensing image of Jianpinggou catchment before and after the earthquake

- **Method**

- Numerical simulation

- The Integrated Hydrology Model (InHM)

- **Aims**

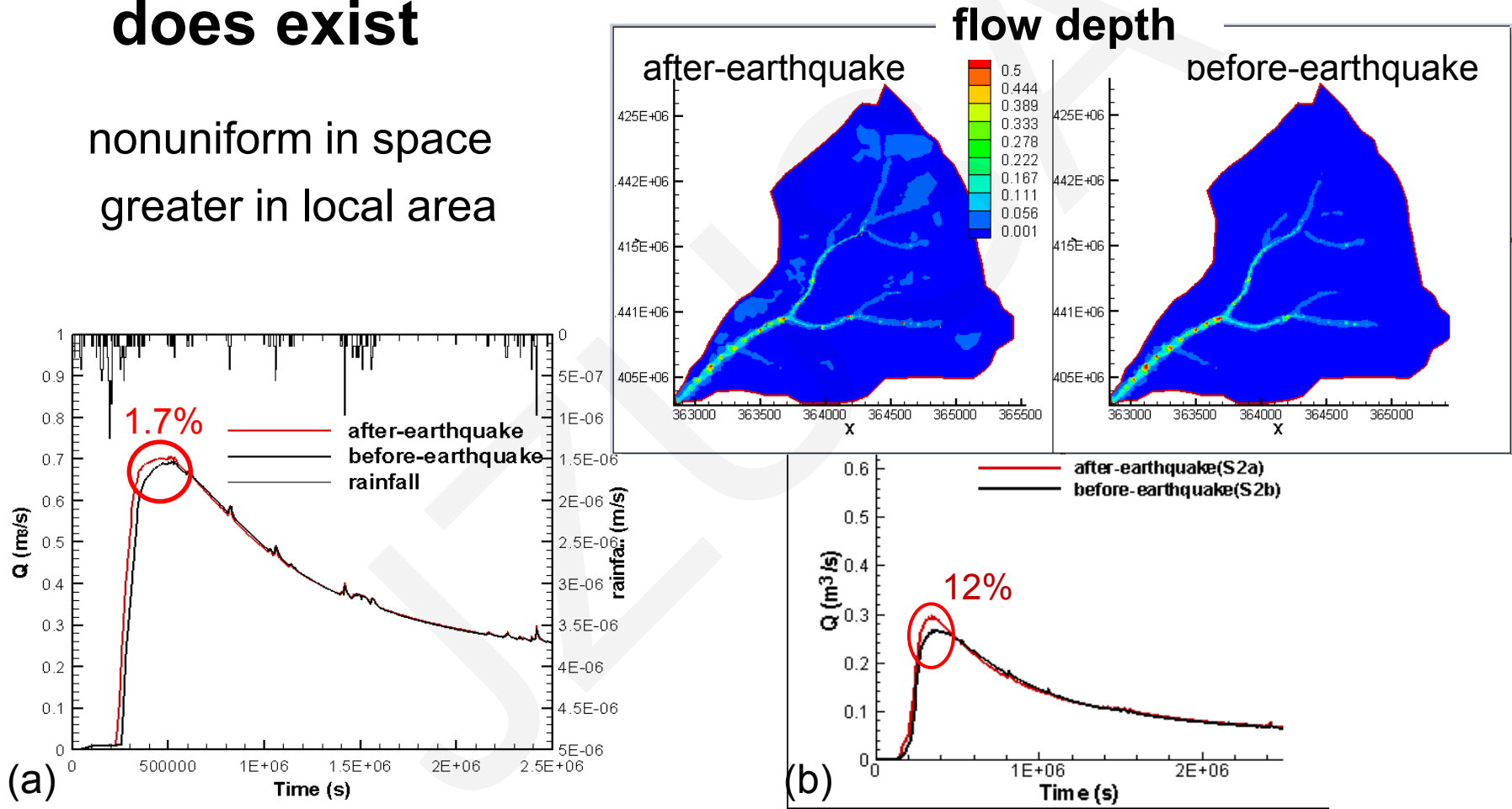
- Does the influence exist?

- The degree of influence

Results

■ Impact of landslides on hydrologic response does exist

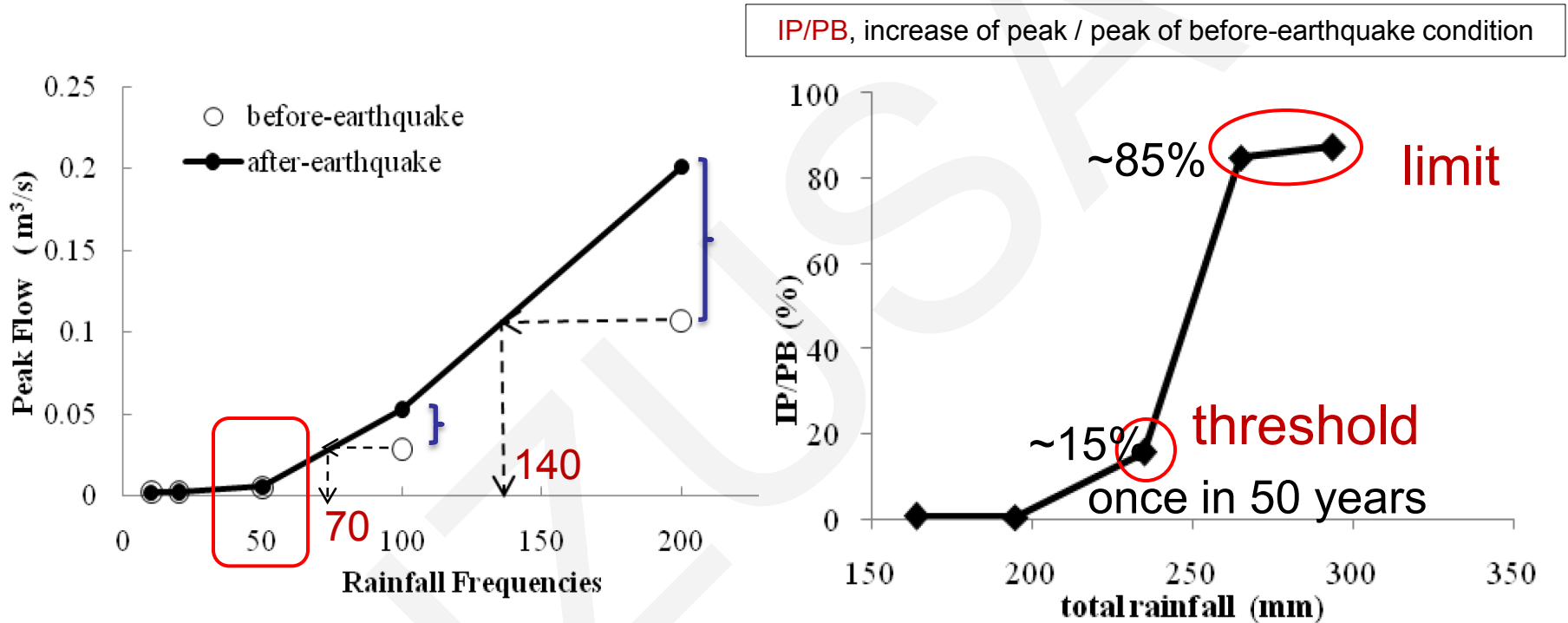
nonuniform in space
greater in local area



The simulated discharge (Q) at the outlet of the (a) catchment, and (b) southern tributary

Results

■ related with rainfall conditions



the larger the rainfall is, the more visible the impact is

increase rapidly at a threshold of runoff, but there is a limit with the further enlarged rainfall