

Study for properties of river avulsion through flume experiments

Takashi Satoh[1]; Noritaka Endo[2]

[1] Earth Sciences, Kanazawa Univ.; [2] Kanazawa U. Earth Sci.

Avulsion is one of important processes in alluvial rivers. This study aims at the relation between the property of avulsion and geomorphological and hydrological parameters, through experiments using a small-sized plain flume. We found that the avulsion frequency depends on the flow discharge, but independent on the gradient of the watershed slope. When the flow discharge increases, the avulsion frequency and the percentage of partial-avulsions (versus full-avulsions) increase, and as a result the river network pattern becomes anastomosing.