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An approach to time compression of geomorphological processes based on largest (ranked) event analysis.

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As a consequence of extreme events, geomorphological processes are compressed in time and changes occur in short time intervals (from minutes to few days). Thus the analysis of the relation between time and geomorphological processes usually is dominated by the studies of extreme events: i.e. events rare, which contribute with most of the geomorphological work.
In this poster we propose a new complementary approach to analyse time compression of geomorphological processes based on the study of largest events instead of classical extreme events analysis. To do that, we present by examples the differences between extreme and largest events. The first are defined by some deviation from central values, while large event means the first, second..., i.e. the order in a set of data whatever its particular magnitude. We also applied the approach to the analyses of geomorphological processes by using the following daily database: Universal Soil Loss Equation database (USLE database, for daily erosion), the United States Geological Survey (USGS Ancillary database), and Hydrological Service of Canada (HYDAT dataset), both for suspended daily sediment transport. We discuss the convenience of such approach for geomorphological processes research.