



Entrainment and movement of sediments along a streambed

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Statistical outcomes and Einstein predictors of ordinary bed-load transport processes have been obtained through an innovative experimental methodology that applies to flows where the bed is flat and made of well sorted particles. Two major findings are presented. The first one is a confirmation of Einstein's assumption about average grain displacement, the distance run between two subsequent resting periods, which is showed to scale with the grain-size only, at given bed slope. The second achievement consists of the probability density function of the grain resting time. This information about the ordinary bed-load regime may be exploited in mechanical/statistical interpretations or in the determination of associated features, e.g., the dispersion of pollution carried by the grains.