عنوان فارسی مقاله:
پایداری سطوح شیبدار بلوکی بدون ساختار

عنوان انگلیسی مقاله:
Stability of Unstructured Block Ramps

توجه!
این فایل تنها قسمتی از ترجمه میباشد. برای تهیه مقاله ترجمه شده کامل با فرمت وردا قابل چاپ و انتشار همراه با نسخه انگلیسی مقاله اینجا کلیک می‌گردد.
Conclusions

Laboratory experiments were conducted under steady conditions for different parameter combinations to investigate the stability of unstructured block ramps. Two sediment mixtures representing typical sediment materials of Swiss Rivers and three block diameters were combined in different ways to test the effect of the bimodal mixture ratio $D/d_{90}$. In terms of ramp stability an optimal ratio for $6.5 < D/d_{90} < 7.4$ has been determined. Two different block placement densities $\lambda$ were tested and their effect quantified: in the optimal range of $D/d_{90}$ a block placement density $\lambda = 0.25$ has a significant stabilizing effect on the ramp, resulting in an equilibrium slope of 30–50% steeper than for $\lambda = 0.15$. Furthermore, it was shown that the experiments with uniform sediment material corresponding to $d_{90}$ of the bed material overestimate the ramp stability. The experiments conducted with sediment supply indicated a stabilizing effect on UBR, leading to at least 10% steeper equilibrium slopes even for the largest discharges. This suggests that the experiments conducted without sediment supply represent the lower limit in terms of stability and can therefore be considered as representative for a conservative design.