

عنوان مقاله:

Data filtering methods for collected data by Acoustic Doppler velocimeter

محل انتشار:

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خلاصه مقاله:

Acoustic Doppler velocimeter (ADV) measurements are useful for measurements of mean and turbulent components of fluids in both experimental and field studies. Although ADV has been used commonly for velocity measurements, existence of spikes in the recorded velocity series leads to unreliability of these series. In the present study, four famous despiking algorithms, consist of RC Filter method, Tukey 53H method, acceleration thresholding method and Wavelet thresholding method, were applied to collected data in an straight channel with smooth and rough bed condition. In addition, the wavelet thresholding method as a common and high efficient method was modified. The results show that acceleration thresholding method and modified wavelet method reject spike points and accept valid points. So these methods purify the contaminated series appropriately

کلمات کلیدی:

Turbulence, Data filtering, Acoustic Doppler velocimeter, Velocity signal processing

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