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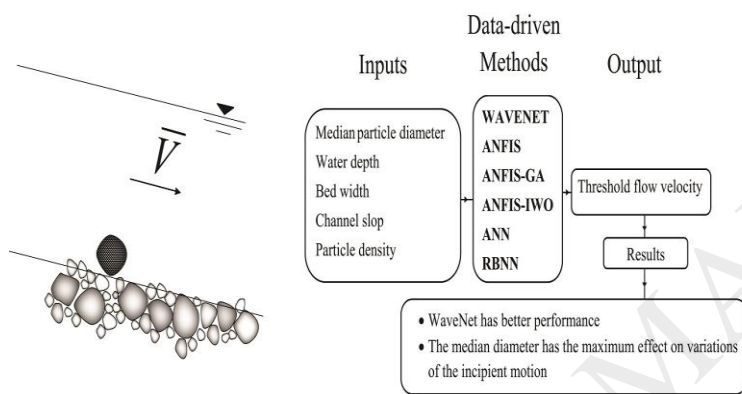
Estimating Incipient Motion Velocity of Bed Sediments using Different Data-driven Methods

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Graphical abstract



Highlights

- Data-driven methods (DDMs) are used to estimate the threshold velocity of sediment motion.
- The obtained results indicate that the WaveNet model has better performance than the other methods.
- The results indicate that the median diameter of the particles and relative density are the most important parameters affecting the threshold velocity.
- Results of Monte Carlo method for analyzing the uncertainty of the threshold velocity of motion showed that the median diameter of grain size has the maximum effect on variations of the incipient motion.

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