



Measuring water velocity fluctuations in a river

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Water velocity fluctuates. There are many reasons for that, namely turbulence, obstacles in a water, seasonallity and many more. We have been measuring water velocity fluctuations in three rivers, namely Suhorka, Padez and Gradascica (Rusjan, Vidmar, Cotar). Those three rivers diverse by size, so it is interesting to see the different attributes of fluctuations. An Acoustic Doppler Velocimeter (ADV) was used as an appropriate measuring device. Measures were done with different sampling and averaging frequencies from 1 second to 5 minutes. The collected data were then analysed statistically and deterministically, using fourier transformations, distributions and different statistical test, fractal distributions and some other tools (Straus, Brilly, Vidmar, Cotar). Our first goal was to differentiate between different fluctuating frequencies. Then we were trying to distinguished between different reasons for fluctuating frequencies. The results will be presented on a comming metting 2010.