Early warning of microbiological contamination of water.

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Microbial contamination of public water resources represents serious health risk. Monitoring of microbial water quality rely on culture growth methods and require at least 18-24 hours for analysis. This is not acceptable in cases where immediate action has to be taken. The presented work evaluates several strategies for utilising surrogate measurements of water quality, such as turbidity, particle size and video sensing, as early warning systems for microbiological contamination, using parallel cell-based measurements for reference measurements. Results from initial field studies will be presented, along with a discussion on potential strategies for maximising the usefulness of the surrogate approaches, in particular, through minimisation of false positives and false negatives.