Multivariate statistical methods used in sensor development and on-line analyzing of data from marine observatories

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Multivariate statistical methods are commonly used in a wide range of industries to optimize production, to design experiments, to plan research and development projects and to calibrate instrumentation. In the development of aquatic sensors these tools are not well recognized. This presentation will discuss the benefits of using such methods when developing and testing new sensor technology. In recent years several types of marine observatories have been developed. These are typically advanced sensor platforms with the ability to provide information in real time from a large number of sensors. In some cases multivariate statistical methods have been successfully used in real time to interpret and better understand complex data-series from marine observatories. Examples of this will be given.