

Uncertainty Assessment of High Frequent Strain Measurements

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SUMMARY

High frequent laser measurements are commonly used in laser scanners or distributed fibre optic acoustic sensing (DAS) instruments. However, a reliable assessment of the attainable accuracy is still pending. This contribution discusses different approaches for the empirical quantification and modelling of the uncertainty of DAS data from laboratory setups with dedicated testing devices. Furthermore, the performance of DAS measurements in real world applications is discussed with robotic total stations and accelerometers as reference sensors.

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