# Matching Fiber Bragg Grating Demodulation Method

Demodulation system bases on the traditional matching method, and uses the two matched Fiber Bragg Grating parallel mode. Just because of this, it improves on a certain extent compared with the ...

A novel approach to fibre Bragg grating spectra processing is proposed. The method is based on the use of nonlinear filtration and raising the ...

In this paper, a set of demodulation system is built based on the principle of edge filter. The system can realize static and dynamic demodulations for the Fiber Bragg grating.

A novel demodulation method based on matched Fiber Bragg grating Fabry-Perot interferometer (FBG-FPI) for strain measurement is proposed and demonstrated, which combines ...

The principle, structure design, and experimental setup of a fiber Bragg grating (FBG) sensor based on matching grating are introduced. The FBG sensor requires several fiber gratings to ...

Fiber Bragg gratings (FBGs) are widely used as sensors for temperature, strain, and vibration measurement. However, current FBG demodulation methods face issues with stability, size, ...

In this paper, we propose an intensity compensation method of path-match interferometer array based on uwFBG reflectors. At first, in order to precisely locate the trajectory for each pulse peak more, ...

This paper presents an improved method of matched multi-FBG-filtering demodulation that uses two cascading artificial neural networks (ANNs). The first net is used to select the matched ...

The aim of this article is to give a comprehensive and systematic overview of discrimination measurement methods of different measurands and demodulation techniques for ...

A novel approach to fibre Bragg grating spectra processing is proposed. The method is based on the use of nonlinear filtration and raising the spectrum value to the second power. A ...

A demodulation algorithm is vital for a fiber Bragg grating (FBG) sensing system. In this paper, a novel demodulation algorithm based on the variable-step-size method and cross-correlation algorithm is ...

This research presents a novel machine learning algorithm based on the Gaussian Mixture Model (GMM) to enhance the demodulation accuracy of the FBG sensor.

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