

## PUBLISHED PAPER

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Paper: Infrared thermography processing based on higher-order statistics

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### Abstracts:

Active thermography has reached a high status as a non-destructive evaluation method due to both ease and speed of inspection. Nevertheless, automatic processing of an infrared (IR) sequence is essential in order to reduce human intervention. Unfortunately, this target is difficult to achieve given the amount of data recorded by the IR camera during a typical inspection process and human participation is absolutely necessary. In this paper, higher-order statistics (HOS) analysis is employed to process IR sequences and to compress the most useful information into a unique image for each inspection. Pulsed infrared thermographic temporal response is well-known with a statistical behaviour. This statistical behaviour is analyzed and the results of its application to carbon fibres reinforced plastic (CFRP) samples are reported.