A multicamera displacement measurement system for wind engineering testing
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Keywords: Wind tunnel, multi-camera displacement measuring system, photogrammetric measurement

ABSTRACT

A new measuring system was developed at the Mechanical Department of the Politecnico di Milano to measure displacements of aeroelastic models during wind tunnel experiments relying on image processing. The system is able to track the variation of the 3D coordinates of model’s points that are identified post processing the images recorded by CCD digital cameras using an active stereoscopic vision technique. The measuring system is described in the present paper and some applications to different wind tunnel applications are reported in order to show the system peculiarities and to discuss the advantages of a similar techniques in comparison to other traditional systems.