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Two-dimensional velocity measurements using Laser-Cantilever-Anemometry in comparison to x-wire anemometry MICHAEL HÖLLING, JAROSLAW PUCZYLOWSKI, JOACHIM PEINKE, ForWind, Institue of Physics - University of Oldenburg — We present an improved 2D Laser-Cantilever-Anemometer (2D LCA) which allows for measurements in two dimensions. The two velocity components are resolved by detecting the bending and the torsion of a tiny cantilever using the laser pointer principle. Thereby a two dimensional position sensitive detector measures the movement of the reflected laser light coming from the cantilever. Measurements carried out with this 2D LCA in comparison to x-wire data acquired in the wake of a cylinder are presented.

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