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Using a Laser-Cantilever-Anemometer for two dimensional measurements in turbulent flows MICHAEL HOELLING, Institute of Physics - University of Oldenburg, Germany, JOACHIM PEINKE, ForWind - Center for Wind Energy Research, Institute of Physics - University of Oldenburg, Germany — We present an improved version of the Laser-Cantilever-Anemometer which allows for measurements in two dimensions. By replacing a one dimensional PSD (Photo Sensitive Detector) with a two dimensional one, additional information about the direction of the local flow can be determined. Measurements carried out with the improved Laser-Cantilever-Anemometer in comparison to X-wire measurements are presented.

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