

# ***Interactive comment on “Aerodynamic characterization of a soft kite by in situ flow measurement” by Johannes Oehler and Roland Schmehl***

## **Anonymous Referee #2**

Received and published: 27 August 2018

This is an interesting paper that presents a novel method of measuring the lift-to-drag of kites used for wind energy extraction. The experimental setup consists of a rigid frame with mounted wind velocity and direction sensors. The frame is attached to the power lines of the kite. The reported measurements include angle of attack, side slip angle, and lift-to-drag, and they appear to be reasonable for in-situ measurements. The main concern of this referee is the stated strong fluctuations at a frequency of 1.2 Hz, corresponding to a reduced frequency of  $k=0.5$ . This indicates a highly unsteady flow pattern with substantial hysteresis in and lift and drag curves. To address the observed fluctuations, authors smooth the data by averaging over 3 cycles. It is unclear why the data were not phase averaged? Phase averaging would allow a more sen-

[Printer-friendly version](#)

[Discussion paper](#)



sible approach for processing the data, and furthermore, the measured aerodynamic values can be compared with those for solid airfoils at the same reduced frequency. Publication would be merited once the authors respond to this key issue.

---

Interactive comment on Wind Energ. Sci. Discuss., <https://doi.org/10.5194/wes-2018-46>, 2018.

Printer-friendly version

Discussion paper

