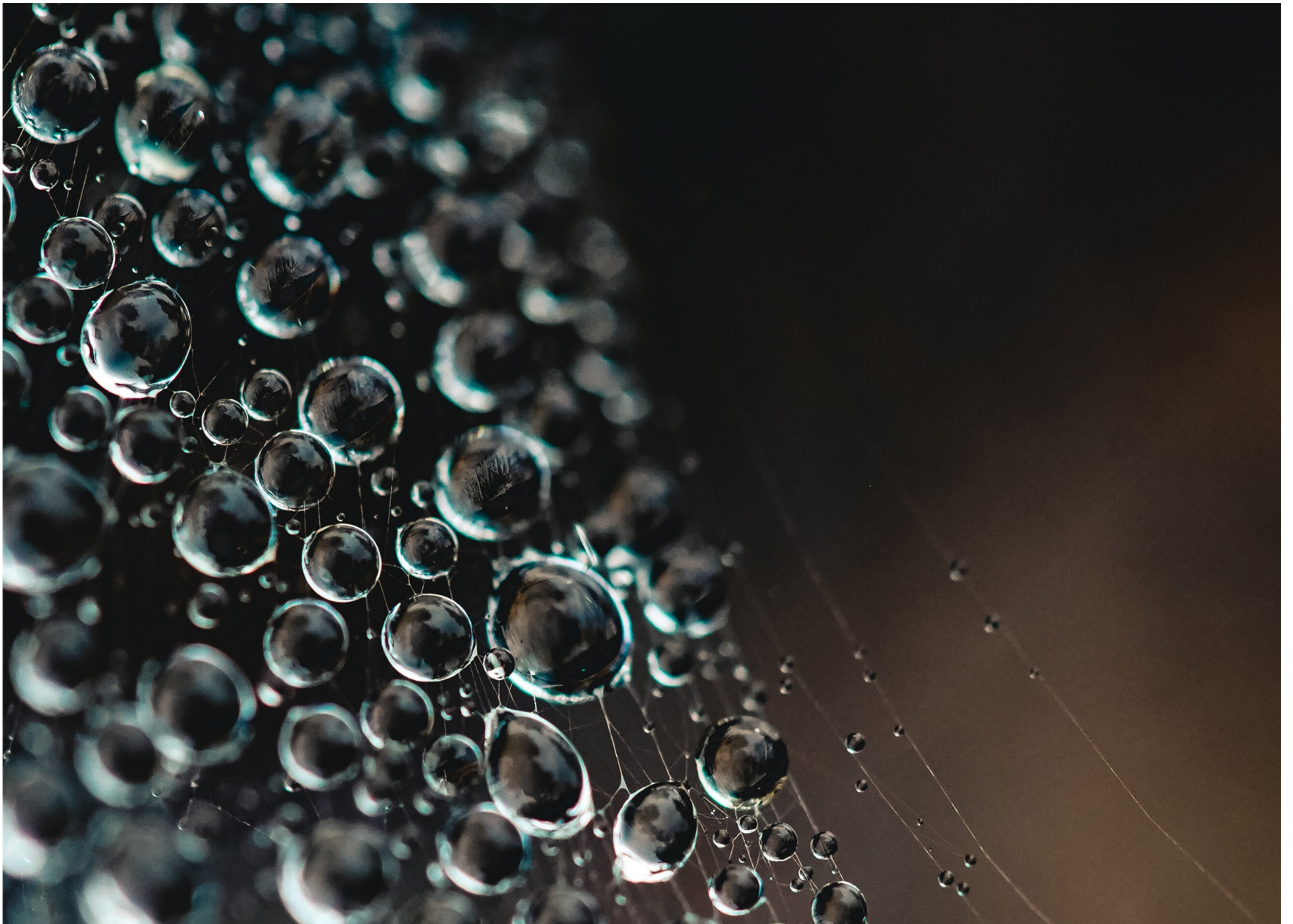


Bachelor's thesis in Energy Systems Engineering

Cavitation Measurements on a Hydrofoil



All turbomachinery that operates with high flow velocities has a high risk of cavitation. Cavitation is a phenomenon that occurs due to pressure reduction of the liquid below the evaporation pressure. This behaviour leads to inefficient turbomachinery such as pumps or turbines. Moreover, the material will be damaged and unstable operation will occur.

This project is an experimental work conducted in the hydro lab of the applied University of Lucerne in Horw. The test rig allows measuring many parameters, such as temperatures, pressures, volume flow rate and many more.

The cavitation occurrence was recorded with a high speed camera. Later were post-processed the image with MATLAB to create representative graphs.

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