The objective of the thesis is to study the effect of the wake of a moving wind turbine on a second wind turbine using PIV.

The moving wind turbine is a 1:148 scale model of the DTU 10 MW turbine, which is mounted onto a parallel kinematics robotics platform with 6 degrees of freedom.

In April 2023 motion tests were performed using one wind turbine using PIV measurements. For November 2023 tests are being planned with the hardware-in-the-loop system for the first and the test from April 2023 will be repeated.

The test, which will be the main subject for my MSc thesis are currently scheduled for March 2024. A second wind turbine will be added to the experimental system. The second wind turbine will be a twin of the first and the test configuration will include a stationary and a moving wind turbine. This second wind turbine has been ordered. Beside investigating the influence of the first wind turbine on the second the hardware-in-the-loop is going to be tested as well, which will be outside the scope of the thesis.