Vorticity based numerical models for horizontal axis wind turbine wake simulation.

Description: The project consists of the development of a vorticity based numerical tool for the simulation of the near wake of a horizontal axis wind turbine to be coupled with a wind farm model, for the optimization of power output, structural load and turbines layout . Experiments will be performed in the TUDelft OJF wind tunnel, where the development and the interaction of the wakes behind two small model wind turbines will be characterized with PIV measurements.