

Modelling and control of wind farm

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Photo by Bel Air Aviation Denmark - Helicopter Services

Wind turbines are usually grouped together in order to reduce the overall cost. The photo above is the Horns Rev 2 offshore wind farm located in the Danish North Sea, which consists of 91 wind turbines. The upstream turbines usually reduce the wind speed and increase the wind turbulence, thus causing a negative impact on the downstream turbines. A detailed wind farm model and an efficient control strategy is required in order to mitigate the wake's impact. Our research is to tackle this challenge.



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