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Wind Turbine Loads and Wind Plant Performance

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Deadline for manuscript submissions: closed (31 March 2018)

Message from the Guest Editors

We invite submissions of articles to a Special Issue of the journal, Energies, in the general area, "Wind Turbine Loads and Wind Plant Performance." Modern utility-scale turbines are complex machines designed to survive a host of contrasting external conditions. In different statesoperating, parked, idling, start-up, shutdown-and for various desired limit states of performance, turbines must be equipped with control systems. Increasingly larger rotors imply greater variability in inflow conditions over the rotor-swept area. Loads on a turbine in isolation are understood to be quite different from those on units that are part of arrays. High-performance computational resources are being brought to bear to address all of these complexities in loads analyses for turbines and even in consideration for full-plant optimization and control. Uncertainty quantification that considers all "quantities of interest" related to turbine loads and in plant performance stemming from uncertainties in inflow characterization, in models, in physics descriptions, and in turbine materials/structures is of great interest in the rapidly maturing wind energy industry.



Specialsue





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Message from the Editor-in-Chief

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