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Analysis and Design of Wind Turbine Towers

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Message from the Guest Editors

Wind energy is a major alternative among renewable energy resources. Progress in wind energy has been the outcome of many decades of research and developments. A key motive for these efforts has been the 1973 oil crisis. Nowadays, another challenge has emerged, i.e., the efforts set by governments worldwide for the decarbonization of their economies. Wind energy can have an important contribution in meeting these strict goals. Exploiting the higher wind potential at large heights but also in the vast available offshore areas can increase the productivity of wind turbines and serve this purpose. However, building taller towers to be installed in a multi-hazard environment like the offshore, can pose significant challenges to the wind energy structures, which need to be well understood.

This Special Issue aims to collect the latest research in the field and invites the submission of articles related (but not limited) to the following topics:

- Steel, concrete and composite towers
- Wind and seismic effects
- Vibrational response
- Structural and fatigue limit states
- Design codes and guidelines
- Analytical, numerical and experimental methods of analysis



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