

## Special Issue

# New Challenges in Bridge Wind Engineering

### Message from the Guest Editors

Bridge wind engineering aims to study the static effects and dynamic response of bridges that may occur in various wind environments, to provide solutions for the design, construction, and maintenance of bridge structures and to provide for the service throughout their life cycle. The dynamic response of large span flexible bridges and flexible members in bridges under wind loads is significant and needs to be focused on the study of wind resistance performance. The content includes the characteristics of natural wind; wind load distribution law of large-span bridges; the response of bridge structures under wind load; the mechanism and characteristics of different types of wind-induced vibration, such as vortex vibration, fluttering, buffeting, and rain-wind induced vibration; control methods of wind-induced vibration, including structural measures, mechanical measures, aerodynamic measures, etc.; the influence of extreme wind environments on bridge structure, etc. With theoretical analysis, field measurements, wind tunnel experiments, and numerical simulations, some new breakthroughs have been achieved.

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### Guest Editors

Prof. Dr. Wenli Chen  
Dr. Donglai Gao  
Dr. Wen-Han Yang

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### Deadline for manuscript submissions

closed (31 July 2023)



## Applied Sciences

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### Editor-in-Chief

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