



Fatigue Damage Monitoring, Assessment and Reinforcement Method in Steel Bridge

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Deadline for manuscript
submissions:

closed (1 October 2023)

Message from the Guest Editors

Fatigue cracks are often observed in steel bridges caused by the cyclic loads, initial defects, and residual stress, etc. The initiation and growth of fatigue cracks may lead to structure failure, or worse, sudden rupture. It is of great importance to monitor and assess the fatigue damage, and then propose the reinforcement method to ensure structural safety.

In view of these latest developments, this Special Issue invites original articles and review papers to introduce the latest progress in any aspect of monitoring, evaluating, and reinforcing steel bridges in terms of technical principles and implementation processes.

Topics may include, but are not limited to, the following:

- Case studies and field observations for fatigue damage in bridges;
- The intelligent monitoring for steel bridge fatigue;
- Fatigue damage assessment in bridge engineering;
- Fatigue test of steel and steel–concrete composite structures;
- Fatigue behavior of innovative structures and details;
- Fatigue crack monitoring in bridge engineering;
- Numerical modelling of fatigue damage processes;
- Fatigue behavior-experimental or numerical studies;
- Reinforcement method for fatigue crack.





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