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# **Fracture Mechanics of Asphalt Pavement Materials and Structures**

Guest Editor:

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#### Message from the Guest Editor

Currently, the adoption of fracture mechanics theory is receiving considerable attention in the evaluation of the cracking resistance of asphalt mixtures. Although existing standards clearly define the methods for testing the fracture performance of asphalt mixtures and pavements at low and intermediate temperatures, there remains significant potential for development in the characterization of asphalt concrete's fracture behavior and for refining the testing methodologies that are based on fracture mechanics. The purpose of this Special Issue is thus to collect the latest research and achievements, and discuss progress in the improved fracture mechanics of asphalt pavement materials and structures, in order to provide guidance for the design of durable asphalt pavements.

Potential topics of interest for this Special Issue include, but are not limited to, the following:

- Mixture design and optimization, based on fracture mechanics;
- Fracture testing and the prediction of binder, mixture, and pavement performance using novel testing methods;
- The fracture performance of asphalt mixture and base materials containing RAP or other solid wastes;





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# **Editor-in-Chief**

#### Message from the Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo** Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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