



## Fractal Theory Applications in the Contact Interface of Mechanical Equipment

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### Message from the Guest Editors

Dear Colleagues,

Fractal theory, a mathematical tool used to describe complex and irregular shapes in nature, has been introduced into the field of mechanical equipment. In the study of contact interfaces in mechanical equipment, fractal theory demonstrates its unique advantages. It can delicately depict the microstructure of contact surfaces, providing a new perspective for contact mechanics analysis of mechanical equipment. Revealing the complex morphological patterns of interfaces aids in understanding the tribological characteristics and performance degradation mechanisms of mechanical equipment. By applying fractal theory, we can gain a deeper understanding of the contact mechanics and tribological properties of mechanical equipment, thereby optimizing equipment design and improving its performance and durability.

The focus of this Special Issue is to advance research on modeling methods for surface topography, tribological properties of contact interfaces, mechanical properties of contact interfaces, and cross-scale interface contact characteristics.

