



## Self-Organization during Friction: Do We Know Enough about It?

Guest Editor:

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### Message from the Guest Editor

Dear Colleagues,

In the current era of nano-science and nano-technology, the latest developments in the field of tribology have provided several major contributions to thermo-dynamics, self-organization, and self-organized criticality of nonequilibrium systems. Studies of these fields are paving the way for future engineering advancements capable of dramatically improving wear performance under extreme conditions. The major focus of this issue is the development of future thin film nano-materials for various tribological applications, such as machining tools, bearing and other heavily loaded tribo-systems.

The common direction in all of these fields concerns the study of surface/interface phenomena and dissipative structures that form on the surface. These structures can significantly improve the service life of tribo-systems. A combined knowledge of tribology, nonequilibrium thermo-dynamics and modern material science is vital for developing efficient strategies of dealing with ongoing challenges faced by tribology and material science.

