



Vibrations in Materials Processing Machines

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Message from the Guest Editors

This Special Issue intends to provide state-of-the-art and dominating research trends in the vibrations of materials processing machines. A non-exhaustive list of subjects of interest could be formulated as follows:

- Nonlinear vibrations modelling in multi-body systems;
- Process stability monitoring based on vibration signals;
- Stochastic impacts and vibration of bulk materials;
- Design and optimisation of vibratory machines (sieving screens, feeders, hammers);
- Vibration-based tumbling mills control and grinding process optimisation;
- Detection and control of chatter vibrations in rolling mills and auxiliary equipment;
- Friction-induced torsional vibrations in the drivetrains;
- Vibrations and product quality in metal treatment (cutting, milling, grinding);
- Drill strings torsional vibrations in the oil and gas industry;
- Condition monitoring of industrial plants by the vibration signals;
- New methods and tools of vibration measurements in harsh conditions;
- Active and passive vibration damping and dynamical loads reduction;
- Vibration-driven locomotion systems and robots.

