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## Seminar über Fragen der Mechanik

zu folgendem Vortrag wird herzlich eingeladen

Montag, **03.02.2020, 14:00 Uhr**, Egerlandstr. 5, Raum 0.044

### Intentional Use of Nonlinearity for Passive Vibration Mitigation

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The intentional use of nonlinearity to mitigate vibrations under impulsive, periodic or self-excitation is a research field of increasing importance. Many concepts for mitigating vibrations show intrinsically nonlinear behavior. In other concepts, nonlinearity is deliberately introduced. In either case, one can exploit salient nonlinear phenomena, such as the targeted energy transfer among different time and length scales, to achieve effectiveness and robustness never reached by linear means. On the other hand, nonlinearity brings specific challenges to the theoretical analysis, numerical simulation and experimental investigation. This seminar reviews the ideas and fundamental principles of available means of nonlinear vibration mitigation. The opportunities and limitations are compared to conventional linear vibration mitigation concepts. The seminar covers the range of theoretical aspects, experimental results and technical applications.

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