東京大学グローバルCOEプログラム　機械システム・イノベーション国際拠点

東京大学 THE UNIVERSITY OF TOKYO

GMSI Global Center of Excellence for Mechanical Systems Innovation

第63回　GMSI公開セミナー

1. **Semi–active Control of Friction Dampers in Simulations and Experiments**
2. **Modeling of Bolted Joints in Automotive Structures**

Prof. Dr.-Ing. habil. Lothar Gaul

Institute of Applied and Experimental Mechanics
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日時：2010年 8月24日（火）　13:30–15:00
会場：東京大学工学部2号館 7F 73C2

要旨

1. Semi–active Control of Friction Dampers in Simulations and Experiments

Reduction of structural vibrations is of major interest in mechanical engineering for lowering sound emission of vibrating structures, improving accuracy of machines and increasing structure durability. Besides design optimization and passive damping treatments, active structural vibration control can be applied to reduce unwanted vibrations. In this contribution, two semi-active control laws for control of friction dampers are derived and investigated in simulations and experiments.

2. Modeling of Bolted Joints in Automotive Structures

Vibration properties of most assembled mechanical systems depend on frictional damping in joints. The non-linear transfer behavior of the frictional interfaces often provides the dominant damping mechanism in a built-up structure and plays an important role in the vibratory response of the structure. This seminar gives a short overview of three different approaches to damping modeling based on the contact distribution in joints, such as Local Joint Models, Zero Thickness Finite Elements and Thin Layer Finite Elements.

主催：　東京大学グローバルCOEプログラム「機械システム・イノベーション国際拠点」
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