

## 特別講演会のご案内

日本機械学会東北学生会  
東北大学機械系トライボベーストデザイン研究センター共催

**題目：**Development of the knowledge on impact with friction, lessons and perspectives

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**日時：**2005年3月1日 火曜日  
午後1時00分～午後2時30分

**会場：**東北大学 機械系2号館（213号室）

The phenomenon of impact is still not well understood even though a few centuries have passed since Newton defined the restitution coefficient in central impact. When surfaces of the colliding bodies are rough, and impact has a tangential component, friction introduces new complicated behaviour. For example depending on friction a rotating ball hitting the ground will rebound in different direction and ball rotation may continue in the original direction, in reverse or stop. Real-life examples of impact with friction are many: the contact of a head of computer hard disk on the plate, pin-on-rail impact in ultrasonic motors, gear backlash, billiard, tennis and soccer balls, etc. all of which are expecting solutions in the view point of improved predictability and controllability after impact. This presentation is an overview on the past research on impact with friction and it outlines the remaining problems in the field.

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