YOSHIOKA LAB.

Controlled Precision Machining

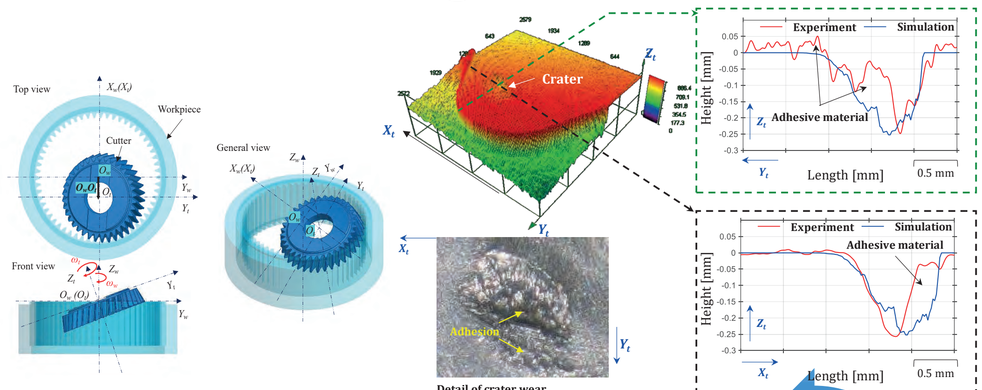
Department of Mechanical and Biofunctional Systems

Production Engineering
Department of Mechanical Engineering, Graduate School of Engineering

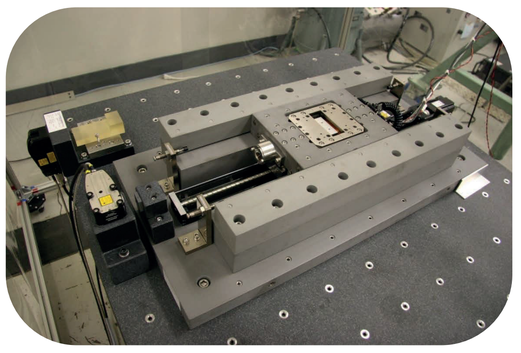
https://yoshioka-lab.iis.u-tokyo.ac.jp/

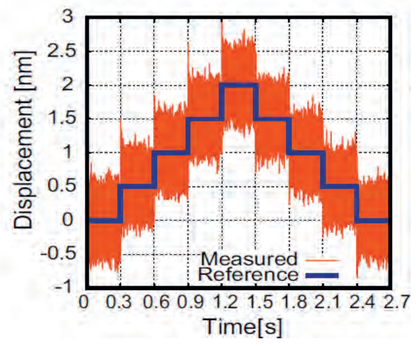
- Realization of Advanced Machining Technology
- Control of Machining Factors nearby Machining Point

Gear skiving simulation



- Motion modeling
- Tool wear prediction

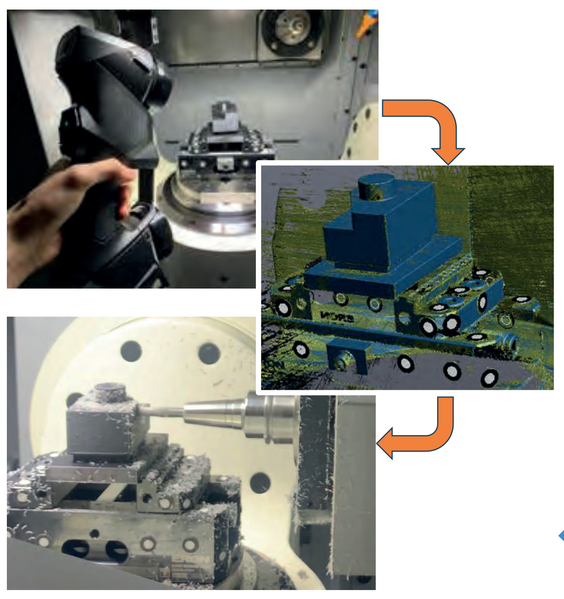




Ultraprecision Motion Control

- Nanometer position
- Ideal Mechanical Structure

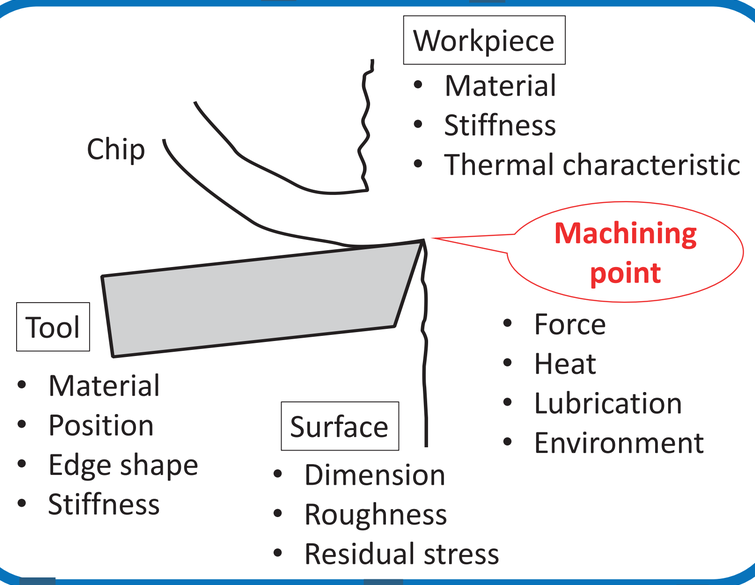
Flexible machining system



- Non-specialized jig machining
- Automated production systems

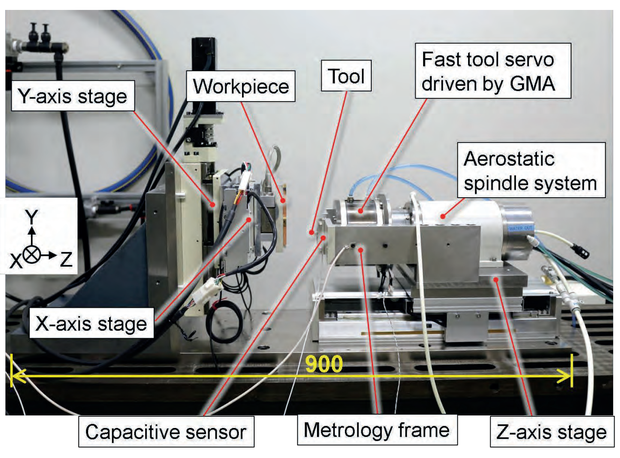
図４．８ CQM_ImpによるFMS加工セルのスケジュール出力結果の例

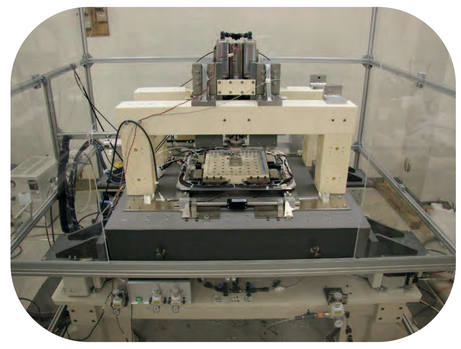
- Scheduling optimization
- Quantum Annealing Computation

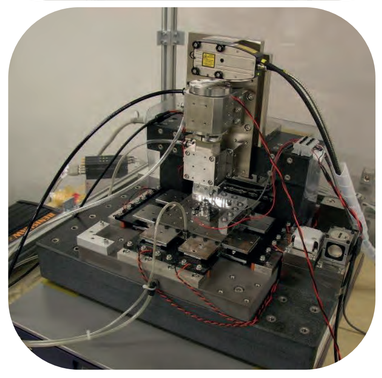


Fast Tool Servo for Milling process

- Axial Positioning of Cutting Tool
- Texturing on Curved Surface







Ultraprecision Machining System

- Multi- axis nanometer positioning
- High Stable Mechanical Structure