

**Experimental Aerodynamics Lab., Dept. of Aerospace Engineering** 

## Nonomura · Ozawa · Nagata Lab.



**Associate Prof.** Nonomura

Laboratory of world top-level fluid measurement, control, and modelling. We conduct wind tunnel experience with data-driven science





## **Data-driven Science based Advanced Measurement**

- **Data-driven superresolution measurement**
- Surface measurement using pressure/temperature sensitive paint

## Reduced order modeling and flow control

- Data-driven flow control using • reduced order model and sparse sensing
- Real time flow observation using sparse sensing  $\bullet$
- Flow control using plasma actuator. •
- Fluid Dynamics under Unique Conditions
  - Aerodynamics of low Reynolds number and • high Mach number condition using Mars Wind Tunnel
  - Analysis of three-dimensional separation flow physics  $\bullet$ using Magnetic Suspension and Balance System

