

IGA / OKAJIMA's laboratory

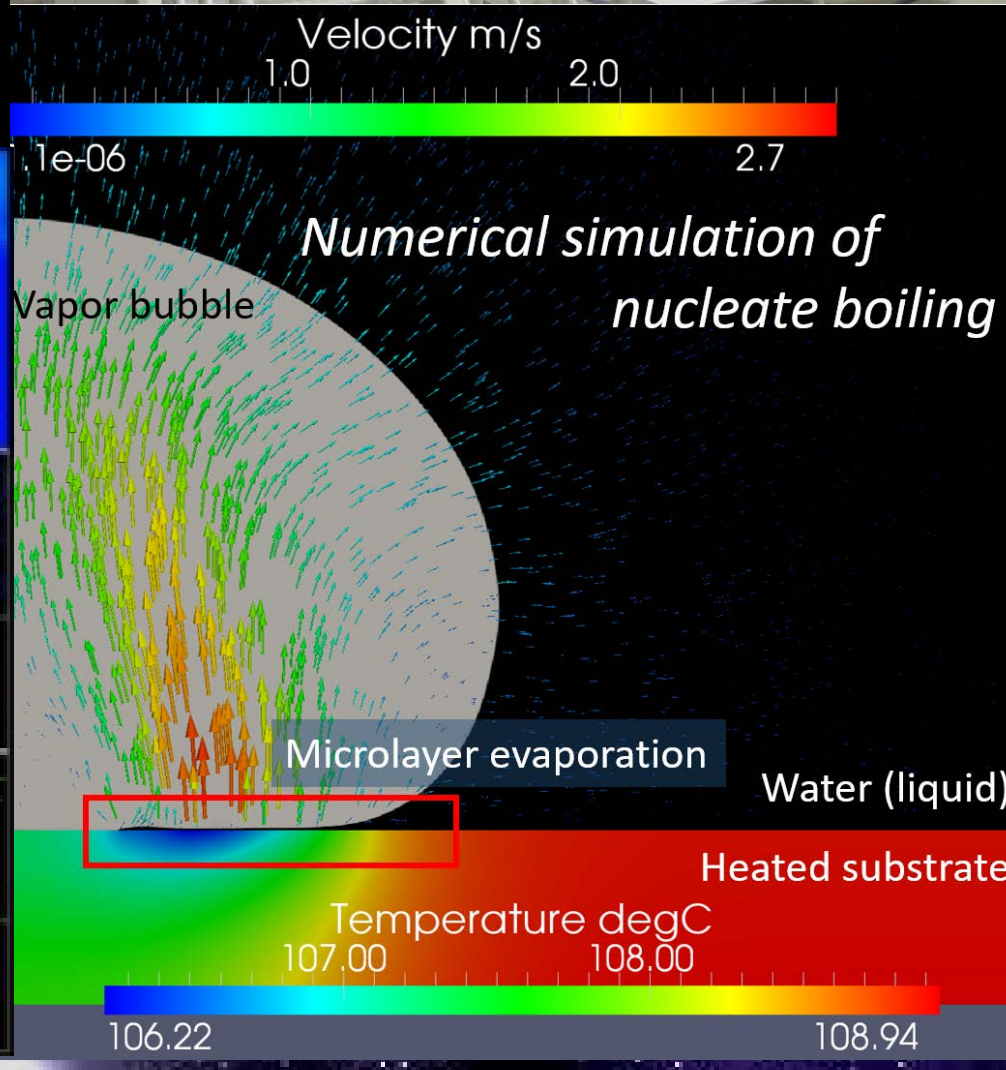
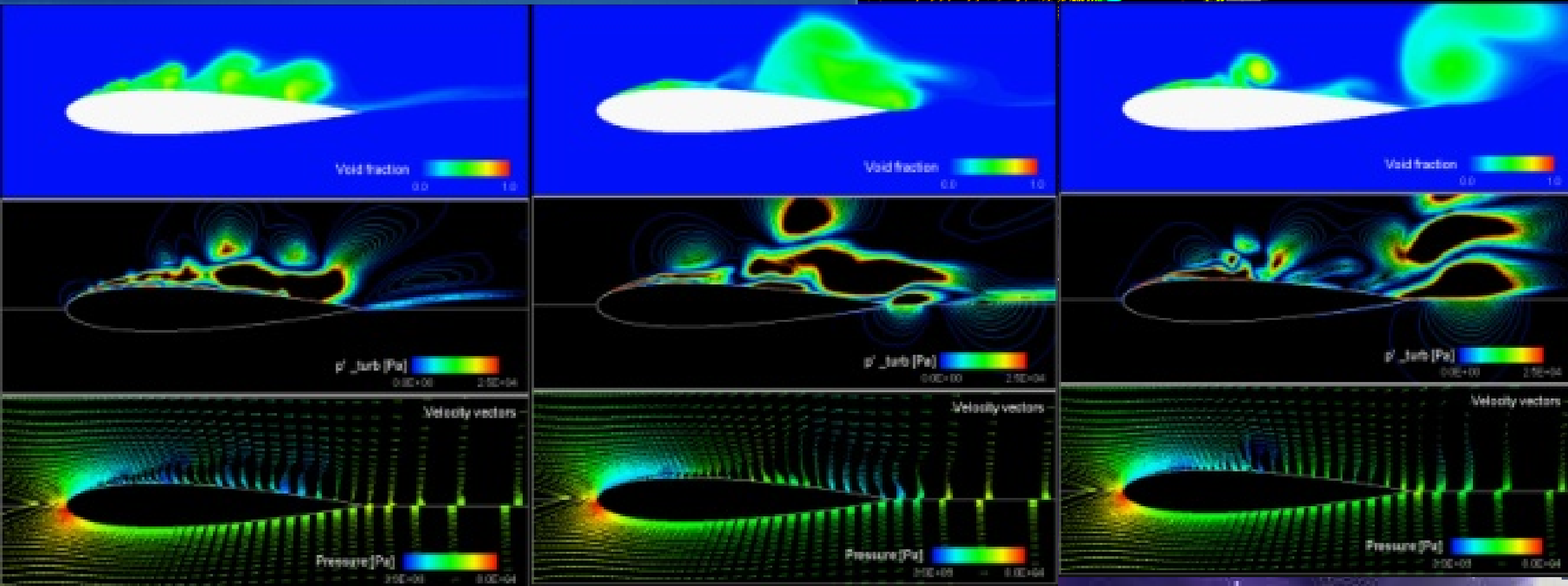
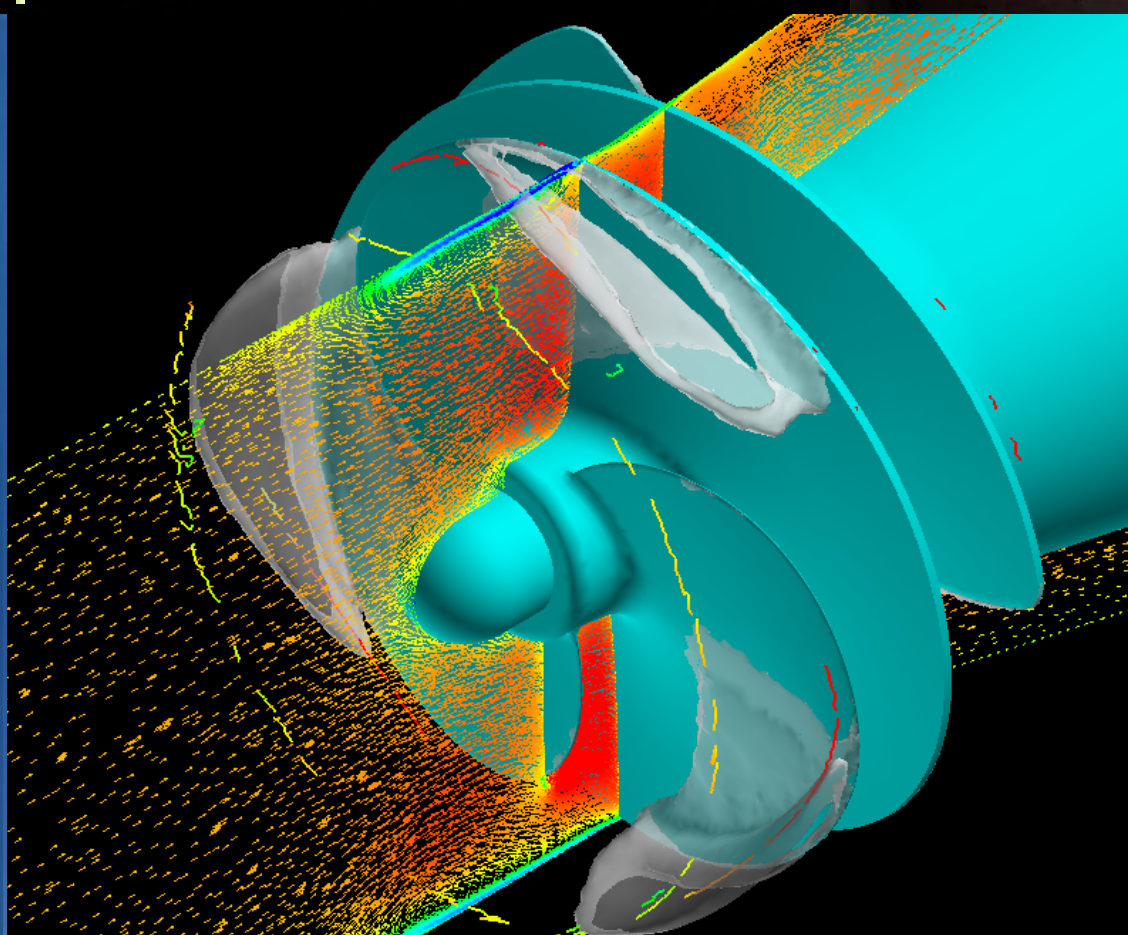
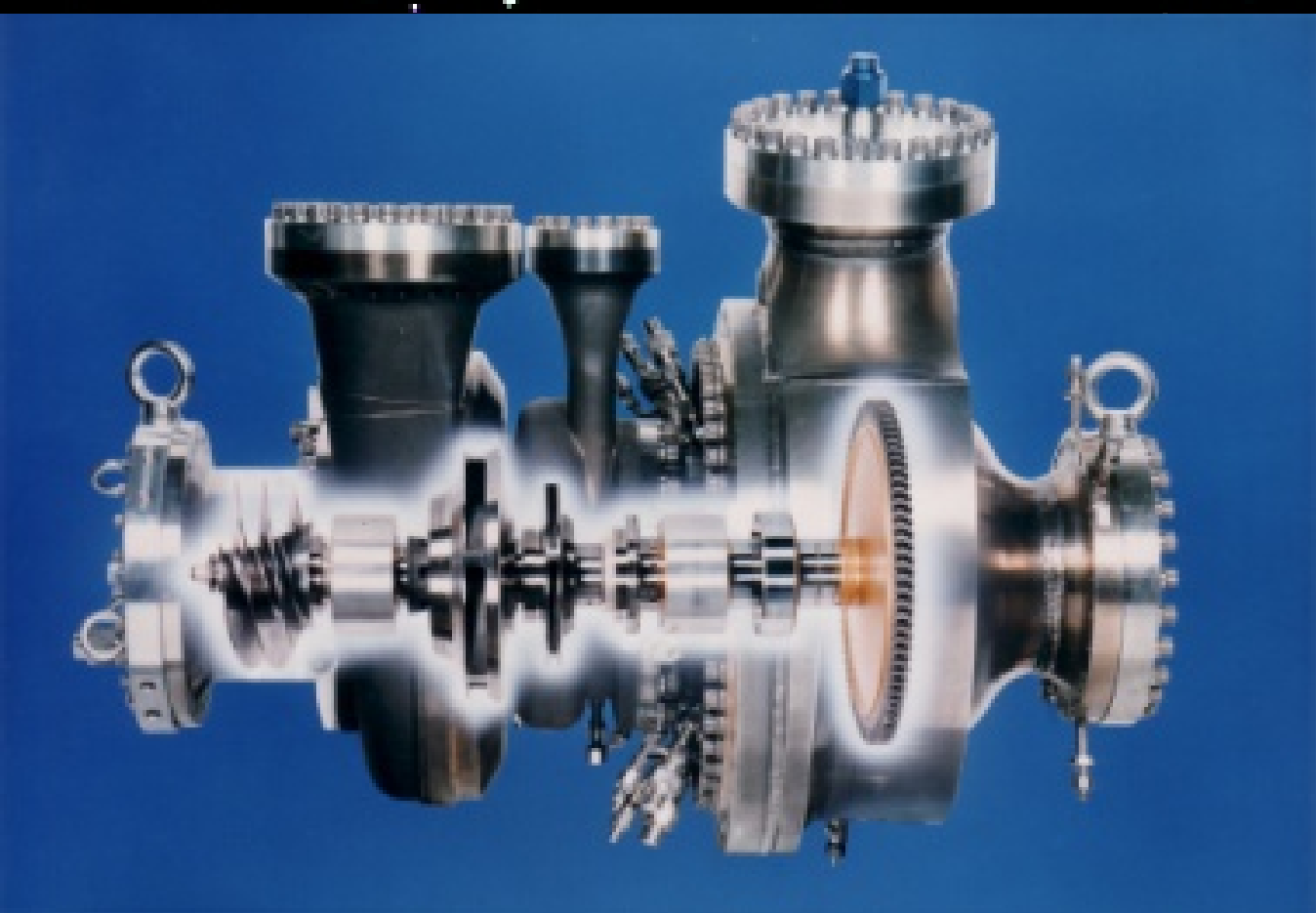
Advanced Fluid Machinery Systems Laboratory



Prof. Yuka Iga



*Assoc. Prof.
Junnosuke Okajima*



In this laboratory, complex gas-liquid mixture flow phenomena, especially cavitation and boiling, are studied using supercomputing and experiments. Additionally, the advancement of fluid machinery systems with the mixture flows is investigated.

Research Subject

Iga group

- Development of suppression method of cavitation instabilities in liquid propellant rocket turbopump
- Study on thermodynamic self-suppression effect of cavitation in liquid rocket propellant
- Occurrence mechanism of gaseous cavitation

Okajima group

- Boiling phenomena of liquefied hydrogen
- Phase change thermal fluid phenomena and heat transfer in high-speed flow
- Development of cooling system for next-generation power semiconductor device