

Division of Mechanical Science and Engineering	Research field	Thermal Systems	Lab. ID ME05
Laboratory web site	https://fluid.w3.kanazawa-u.ac.jp/		
Research subjects			
Various thermo-fluid phenomena ranging from low-speed to high-speed are investigated, e.g., [1] Compressible flows around aircrafts and space vehicles, [2] Incompressible flows around bluff bodies such as automobiles, and [3] Renewable energy applications (Geothermal heat exchangers, airfoils of wind turbines, etc.). Irreversibility related to nonequilibrium relaxation processes of galaxy clusters and nano clusters are also studied theoretically and numerically.			
Master/Doctor course: Education policy, curriculum, typical activity in the laboratory			
* In the first semester of the first grade, graduate students decide their practical subject for the Master or Doctor thesis, through long and heavy discussions with their advisers. * All the students must report on their progress and discuss with the adviser for an hour or more every week. * All the students in the fluid dynamics laboratory (Thermo Systems + Fluid dynamics) must take part in a weekly seminar for two hours or so. In this seminar, two presenters report on their progress and introduce recent papers related to their researches. After each presentation, the presenter discusses with all the staffs and students in the fluid dynamics laboratory.			
Daily life in the laboratory, etc.			
We regularly hold various seminars regarding our research subjects. Also, frequent events and discussions between students help to have a fulfilling laboratory life.[M2] My research subject is solidification of metal. To get refreshed, I enjoy basketball and play on a adult basketball team twice a week. [M2] Undergraduate and graduate students enjoy a lively and unrestricted discussion regardless of research subjects. [M2]			
Message or comments by the laboratory faculty staffs			
The laboratory life is long and is expected to be very hard. Undergraduate students who hope to join this laboratory will do better to ask the staff (i.e., Nobuyoshi Komatsu) beforehand. After taking the master degree, most graduates work in companies related to the manufacturing industry, e.g., DENSO Corporation, Suntory Holdings Limited, Panasonic Corporation, YKK Corporation, TOYOTA motor corporation etc.. After taking the doctoral degree, graduates return their companies because they were in the course of graduate program for working adults.			
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