## **Control of Heat and Fluid Flows**

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Illustration



Photo 1 Look of cavities

The photograph shows cavities generated along with impeller in aerated agitated tank. When gas is blown into agitated tank, gas hollow named "cavity" appears behind impeller blade. Namely, gas is trapped with impeller.

## Why does such phenomenon happen?

There are many strange phenomena in fields of fluid flow and heat transfer. Investigations of such strange phenomena have been challenged.

## Contents:

Fluid Dynamics

Research on solid-liquid two-phase flow. (How to flow solid-liquid mixture with skill)

Liquid-liquid or gas-liquid agitation. (How to prepare emulsion) (How to disperse gas in liquid)

Heat transfer

Convective heat transfer from several heated bodies. (How to heat bodies with skill)

Beneficial use of thermal storage capsule.

(How to use thermal storage capsule for quick exchange of heat)

Yamagata University Graduate School of Science and Engineering Research Interest: Heat Transfer and Fluid Dynamics

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