

特別講演会

日時：平成 24 年 2 月 27 日（月）15:00～16:30

場所：東北大学流体科学研究所 2 号館 5 階大講義室

講師：Dr. Mohamed Farhat (スイス連邦工科大学流体機械研究所, スイス)

題目：On the dynamic of cavitation bubbles

講演内容

It is well known that cavitation may lead to severe erosion in hydraulic machines such as pumps, turbines or ship propellers. Yet the physics behind the erosive process of collapsing bubbles is still not fully understood. We present here a review of recent experimental investigations involving the following aspects:

1. Bubble dynamic within confined liquid volumes
2. Cavitation induced by high speed liquid-solid impact
3. Effects of pressure gradient on cavitation bubble dynamics

These studies were mainly performed in EPFL high speed cavitation tunnel and aboard Zero G flights with the collaboration of the European Space Agency. We will focus on peculiar phenomena that we have discovered and which improves our understanding of the erosion mechanism in hydraulic machines.

※本特別講演会は流体科学研究所公募共同研究の一環として開催します。

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