Research opportunity/Flynn lab

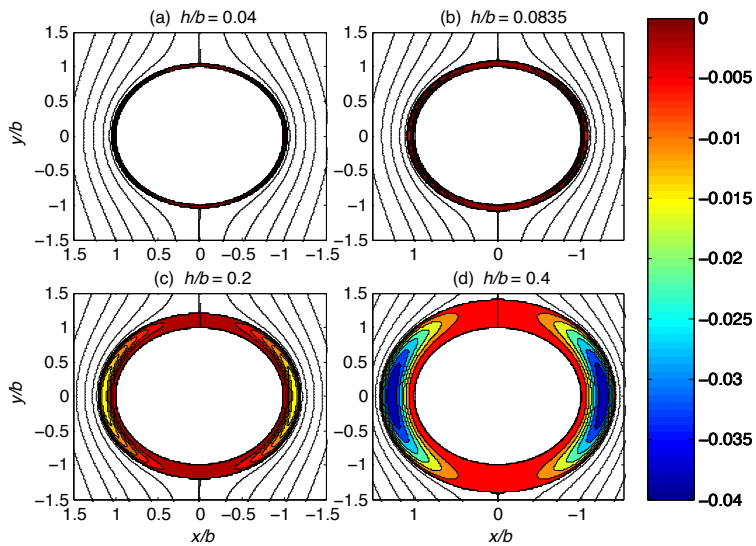
Dept. of Mechanical Engineering, U. Alberta

The Project

The proposed research project will blend theory and laboratory experiment to better understand how heat is transferred in a two-phase air-water flow. Drawing examples from the biological world, we will explore the efficacy of bubbles as thermal insulators for a variety of flow regimes. Although this project is fundamental in nature, it has the potential to inform industrial design, particularly in the realm of lab-on-a-chip technologies and pipelines.

Specialized Training & Skills Development

Training of highly-qualified personnel is paramount. The successful candidate will receive formal training in the following practical areas: i) surface preparation, ii) flow measurement and data processing, and, iii) mathematical/numerical modeling of biological and industrial systems. Opportunities to both collaborate with other U. Alberta researchers (e.g. from the Dept. of Biology) and to participate in national/international conferences will be provided, as appropriate.



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Terrestrial species ⟶ Semi-aquatic species