

Title

Fluid Physics – How to go with the flow

Student teacher

Name	Joakim Rützou Rosenkilde
Education	Bachelor Physics

Introduction to course

Hello!

In this course we'll try to explain physics at the point where the rigid world of mechanics doesn't quite cut it, and we must resort to dynamics – but in fluids.

When we meet, we will try to work just like the "grandfathers" of fluid-dynamics:

- First, we're going to derive some theoretical explanation based on the prep-work that you did (or didn't).
- Secondly, we're going to expand on the theory by considering real-world applications that will help us understand the physics behind boats, airplanes, cars, galaxy formation, baking and stock-market tendencies.
- Lastly, we're going to check our theory by constructing awesome boats in class and have a competition on whose boat can carry the most theoretical and experimental weight.

I'm looking forward to spending time with you guys!

Preparation

Before we meet:

Consider an egg. Do you think its going to float or sink in water?

Find a glass of water and an egg. Place the egg – calmly – into the water and note what happens. Retrieve the egg from the water and add two tablespoons of salt to the water. Place the egg into the water again and note what happens.

In which of the two cases did the egg float? Why do you think that is?

