Introduction

> Hi everyone, it is a great pleasure to be here today. Many of you probably do not know me since I just joined Takuvik team less than two months ago. So, please let me first introduce myself.

- Master in mathematics and computer science
- PhD in Environmental Sciences (Dr. Jean-Jacques Frenette)
- Two years postdoc in Denmark (Dr. Stiig Markager)
- General research interests: *Use of optical methods to understand DOM dynamics in aquatic ecosystems (Satellite imagery, Fluorescence, Absorbance)*

Physic paper

> When I first joined the Takuvik team, I was rapidly introduced to a project that aims to describe the upper ocean physics of Baffin Bay marginal ice zone. I was given the task to use remote sensing products to characterize the state of the atmosphere and ice conditions for both Green Edge missions. Today, I will not present *real* results, but rather show what I have done in these last two months. I see this as a good opportunity to get feedback from you and a chance to further discuss on how do we further exploit the data I generated.

Available data

> Here is a list of data that I have processed that are ready for exploitation.

Examples

- Sea ice extent
- Wind speed: can clearly see patterns

Data exploitation

> One problem with all these data is that they come from different sources which can make their exploitation a bit difficult.

360 degrees ice-cam

> Another project I was given was to use the 360 degrees camera that was on board of the Amundsen. Maybe you know that the Amundsen was equipped with a 360 degrees camera with the purpose of esimating...

Spatial projection

> Camera calibration was done on the ship so for each pixel in the panorama we know its distance form the ship. Hence, with a bit of geometry, we can project the panorama around the ship.

Ice detection

> Using a simple threshold segmentation technique we can produce a binary image that indicate the presence of ice around the ship.

What's next?