

# COE Internship Experience Note

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## 1 Academic Perspective

My internship was in Prof. Maruyama-Komiya's laboratory. I was part of the Laputa team, which studies the up-welling of deep seawater in order to develop ocean farming in open ocean. Deep seawater was pumped in a 300 m depth, 30 cm diameter pipe. I had to study nutrient's diffusion numerically at the pipe outlet, using Tohoku University's Supercomputer and Fluent licenses. The COE has provided me with a comfortable study environment and so I

was able to focus on my research and to obtain encouraging results. The aim of the study - comparison with a previous numerical experiment- was reached, and it proved the use of a turbulent modelling scheme to be valid for the simulation. Those results will be used as a starting point by the Laputa team, for further investigation, and could lead to submit a paper.

It was my first research activity and gave me the taste of it. I liked also the idea of physical research for biological purpose. I consider now doing a phd in oceanography to go further into it.

## 2 Social Perspectives

I came in Tohoku University with a French student of my home university, in France, but it didn't prevent me from meeting many other people during my stay in Japan. First of all, laboratory students were very friendly, organizing a welcome party and a farewell party. I had lunch and often dinner with them, it was a good opportunity to know them in another context and to learn Japanese.

With all the laboratory staff we did a seminar camp, we saw natural hot springs and slept in a Japanese style hotel, in which everyone presented his work, enjoyed the baths and sang at karaoke. I really liked this place and its Japanese atmosphere! Another day, Prof Maruyama organized a visit in a tea ceremony house, in the middle of a beautiful Japanese garden. A taste of culture!

I also met other students from Prof. Obayashi's laboratory, including exchange program students. I was able to discover Sendai night-life and to travel around Sendai and in Tokyo with them. I even spent a night in a capsule hotel, what an interesting experience!

I will keep an excellent memory of this stay and I will remember it as a great human experience.

## 3 Acknowledgments

This internship has been made possible thanks to many people:

- Prof. Maruyama who supported my application, provided me with research advice and was a good teacher of Japanese culture!
- Ms.Konohara and others at the COE staff: they took care for everything during my stay, the accommodation first, and even for everyday life, like helping me to recover lost items in the police station!
- The laboratory staff, students and assistant professor Komiya. I want to thank especially master course student Sato, in second year, who was in charge of my study and gave me useful advice.