京都大学若手人材海外派遣事業 ジョン万プログラム 研究者派遣プログラム

英文報告書

提出日: 平成 26年 5月 20日

1. 渡航者 (日本語)					
氏	氏 名 岸本展		採択年度	平成25年度(第2回)	
部	部 局 数理解析研究所		電話		
職	名	講師		メール	
研究課題名		臨界正則性における非線形分散型方程式の研究			
海外渡航期間		平成 25年 10月 28日~ 平成 26年 4月 20日			
渡航先 (英語表記)		国名:アメリカ合衆国 (United States of America) 大学等研究機関名:シカゴ大学 (University of Chicago) 研究室名等:数学科 (Department of Mathematics) 受入研究者名: Carlos E. Kenig 教授 (Prof. Carlos E. Kenig)			

2. 渡航の報告 (英文)

渡航先の研究環境、研究者との交流、研究発表の状況等、渡航中の滞在経験について英語(500~1000語)で記述して下さい。受入研究者と撮影した写真や研究発表で用いた図等について、可能な範囲で別添として提出して下さい。ページ数については増加してもかまいません。

My research field is Mathematics, especially nonlinear partial differential equations. Under the sponsorship of the Jong Mung Program, I visited Department of Mathematics, the University of Chicago in the United States, from the end of October 2013 to the middle of April 2014. My project title was "Research on Nonlinear Dispersive Equations at the Critical Regularity."

In the university, I was given a small office (shared with another man), access to libraries, the university's secure Wi-Fi, and the common printer, which are more than satisfactory for research of Mathematics. I could also use a large common room with lots of blackboards, which was quite convenient for discussion with other researchers or students.

My host researcher, even though he is a world-famous mathematician and always extremely busy, kindly made his schedule for a one-hour discussion with me every Wednesday. I devoted myself to calculations every day, especially on Mondays and Tuesdays, so that I could bring him new topics on Wednesdays. As a result, I could obtain many research achievements, which amount of three or four new articles, and also begin research on several new topics.

The host professor also organized a seminar almost every week and invited many famous mathematicians to the seminar. The topics of the seminar covered a wide range of research fields; some of them were very close to mine, while others were completely different. I myself had a chance to give a talk in that seminar. I have learned a lot of new ideas, viewpoints, and insights through an exciting discussion with leading researchers of different fields.

My living environment might not be the best. I had decided my apartment for its reasonable rent, but later I realized that the area where the apartment located was not so safe. I decided to cook dinner by myself: The main reason is that if I went to a restaurant for dinner, then I could not get back home before it got dark, which seemed dangerous enough for me. Such an early return was in some sense very good for concentrating on research. However, when one of my friends visited the city, I had to reserve a hotel room in the downtown in order to go for dinner with him.

Although I have limited English hearing and speaking skills, I did not have a problem in communicating with mathematicians in English, because we can communicate by mathematical expressions. Also, they may be familiar with "Japanese pronunciation" of English. However, I found it much more difficult to communicate with the ordinary people when I first met the owner of the apartment. After a half-year stay, my English ability has been much improved, which might be one of the biggest benefits of this overseas research.

This winter was surprisingly cold — in fact the coldest in twenty years — and the lowest temperature in Chicago hit -26 C (-15 F). However, the temperature inside all the buildings in the city was kept at around 20 C (68 F) and I could spend a winter without catching cold. Despite the severe winter cold, I think Chicago is one of the most livable cities in the United States. On the whole, my first experience of long-term overseas research ended on a successful note.

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