

(For JSPS Fellow)

Form B-5

Date (日付)

31/08/2015 (Date/Month/Year: 日/月/年)**Activity Report -Science Dialogue Program-**

(サイエンス・ダイアログ事業 実施報告書)

- Fellow's name (講師氏名): Magnus Axelsson (ID No. P14748)
- Participating school (学校名): Kushiro Koryo High School
- Date (実施日時): 24/08/2015 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): (in English) An introduction to astronomy and black holes
(in Japanese)

- Lecture summary (講演概要): Please summary your lecture 200-500 words.

The lecture started with a presentation of myself and my home country of Sweden. I then talked about my own studies and how I became a scientist. I tried to focus on the importance of English in the scientific community, to motivate the students to learn the language. After this I gave a short introduction to astronomy and what an astronomer does. The focus on the science talk was one of the most exciting objects in the Universe: black holes. I talked about what a black hole is and explained how we study them since we cannot see them directly. We can only detect them when they interact with other objects. When matter from the nearby star falls in, large amounts of energy are released. This creates strong X-ray radiation. We can detect this emission using satellites, such as the Japanese satellites Suzaku and ASTRO-H. Finally, I presented my own reasons for why working as a scientist and astronomer is interesting and rewarding.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 80 min (分), Q&A time (質疑応答時間) 20 min (分)

◆Lecture style (ex.: used projector, conducted experiments)

(講演方法 (例: プロジェクター使用による講演、実験・実習の有無など))

I used a projector and showed slides.

◆Interpretation (ex.: assistance by accompanied person, provided Japanese explanation by yourself) (通訳 (例: 同行者によるサポート、講師本人による日本語説明))

I was assisted by an accompanying colleague.

◆Name and title of accompanied person (同行者 職・氏名)

山田 真也 様、助教

◆Other note worthy information (その他特筆すべき事項):

- Impressions and opinions from accompanied person (同行者の方から、本事業に対する意見・感想等がありましたら、お願いいたします。):

高校の教員の方々の丁寧な受け入れ姿勢と、学生が学ぼうとする真剣な姿勢に、

深く感銘を受けました。同行させて頂けた事にとっても感謝しています。

学生からは、「時間の定義はどうなるのか?」「ブラックホールは消えないのか?」

「なぜ強い重力場では時間が遅れるのか?」など、鋭い質問がいくつも飛び出し、

今回の講師と生徒とのマッチングの良さも感じました。

ぜひ、今後もこのような取り組みを続けて頂きたいと思います。