

(For JSPS Fellow)

Form B-5

Date (日付) 10/09/2015

(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): _____ Filip Blaschke (ID No. P14750)

- Participating school (学校名): _____ Fukushima Prefectural Fukushima High School (Fukushima-city, Fukushima)

- Date (実施日時): _____ 24/08/2015
 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): Solitons and special relativity. (in English)

ソリトンと特殊相対性理論。(in Japanese)

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

In the first part of my talk I talked about my home country, Czech Republic and about myself. In the second part I talked about science in general, why to be a theoretical physicist and how science may benefit one's life in general. I also spoke about solitons in general, especially those, which are common to nature, such as wave patterns, cloud patterns, bubble rings, smoke rings, etc. In the final part of my talk I gave the explicit example of a topological solitons, using the chain of coupled pendulums as a toy model. The non-linear waves on such a chain exhibits many properties common to elementary particles and I tried to explain the features of Einstein's special relativity, such as contraction of lengths and dilatation of time, since these features are easily visible and demonstrable with help of solitons on the chain.

- Language used (使用言語): English

- Lecture format (講演形式): Keynote software (Mac)

◆Lecture time (講演時間) 60 min (分), Q&A time (質疑応答時間) 10 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))

oral presentation with 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))

none

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

◆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。):
