

(For JSPS Fellow)

Form B-5

Date (日付)

(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): GARMON Savannah ガーモン サバンナ (ID No. PE12057)

- Participating school (学校名): Fukushima High School

- Date (実施日時): 13日09月2013年 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): Science as a gateway to the world: the physics of open quantum Systems

科学は世界への扉:開いた量子系の物理

- Lecture summary (講演概要): Quantum physics is a scientific theory that describes the universe on very tiny length scales. At these length scales, matter consists of atoms, molecules and the particles of which they are made. It is well known that atoms and molecules have characteristic energy levels that are discrete. This means that they can only absorb and emit energy in discrete increments. This effect is demonstrated in a simple manner in the Franck-Hertz experiment, for example, which was conducted in Germany in 1914 by James Franck and Gustav Ludwig Hertz.

In this presentation, I will describe my personal story and my interest in physics. I was born in North Carolina, United States in 1978. I became interested in physics my last year in high school and decided to study this field in college. Later I received my Ph.D. in physics at the University of Texas at Austin. My research focuses on open quantum systems. Open quantum systems describe the interaction of atoms and molecules with the environment that surrounds them. This may have applications, for example, in nanotechnology or in the interactions of molecules with waveguides.

Physics gave me the opportunity to explore the interactions between very small systems and much larger systems. But also physics also gave me (one small person!) the opportunity to explore the much larger world around me. So far my career has given me the opportunity to visit many places, including France, Canada and Japan. And I will look forward to visiting Fukushima soon!

- Language used (使用言語): 英語

- Lecture format (講演形式):

◆Lecture time (講演時間) 60 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))

PowerPoint presentation

◆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))

Japanese keywords appeared on slides - short intro comments in Japanese

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

None

◆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。):