

(For JSPS Fellow)

Form B-5

Date (日付)

04/02/2014 (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): Andrey Tayduganov (ID No. P12804)- Participating school (学校名): 香川県立高松桜井高等学校- Date (実施日時): 24/01/2014 (Date/Month/Year: 日/月/年)- Lecture title (講演題目): (in English) The Higgs Boson : Searching for the God Particle(in Japanese) ヒッグスボソン: 神の素粒子を探して

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

In 2013 the Nobel Prize in Physics was awarded "for the theoretical discovery of a mechanism that contributes to our understanding of the origin of mass of subatomic particles, and which recently was confirmed through the discovery of the predicted fundamental particle". This fundamental particle, called the Higgs boson, was theoretically predicted in 1964 and experimentally discovered in 2012. This discovery confirms the existence of the Higgs field, which explains the electroweak symmetry breaking, responsible for the origin of the mass of some fundamental particles of the Standard Model. Everything that has mass gets it via interaction with the Higgs field, which occupies the entire universe. Without the Higgs field, many particles, like electrons, would be massless and move at the speed of light. There would be no atoms and no us.

In the beginning of the lecture, I introduced myself and my country, and discussed about why I decided to become a scientist. After this self introduction, I tried to explain in a very simple way the basic concepts of particle physics, including both theoretical and experimental aspects. Significant part of the lecture was devoted to the Higgs boson and its discovery. In the end I discussed the importance of learning English language.

- Language used (使用言語): English

- Lecture format (講演形式):

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

used projector

Must be typed

◆ 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))

◆ 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。):