

(For JSPS Fellow)

Form B-5

Date (日付) 24/ January / 2017

(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) : Dr. Remya Nair  
 (ID No. P 16025 )

- Participating school (学校名) : Okazaki high school

- Date (実施日時) : 23/ January / 2017  
 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目) : (in English) A brief introduction to Cosmology

(in Japanese) 宇宙論の簡単な紹介

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

I started by introducing myself and my country : India. I talked about the diversity of the country. I also talked about the nature of higher education in the country, and some differences and similarities between Japan and India.

The second lecture was about my research work. It was a brief overview of our understanding of the Universe. I started with ancient astronomers and their discoveries. This was followed by our current understanding of the properties of our Universe at the largest scales. Our understanding comes from looking at the Universe using various cosmological probes and then checking whether our existing theories can explain these observations. I discussed some of these methods, like looking at the spectrum of light coming from far off galaxies to determine the expansion of the Universe, determining cosmological distances using the observations of supernovae, etc. Then I discussed a little about the most puzzling problem in cosmology today, i.e. the accelerated expansion of the Universe. This observation came as a huge surprise to all the physicists. The properties of the fluid responsible for this accelerated expansion is unlike anything we know from the standard models of cosmology and particle physics and hence understanding this component of universe which is sometimes called 'dark energy' is one of the biggest problems for cosmologists today. I tried to motivate the need for new and creative ideas in science.

- Language used (使用言語) : English

- Lecture format (講演形式) :

◆Lecture time (講演時間) around 60 min (分), Q&A time (質疑応答時間) around 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))  
used presentation and projector

◆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))  
students understood English very well, so did not provide Japanese explanation

◆Name and title of accompanied person (同行者 職・氏名)  
No one accompanied

---

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

The lecture was very well organised by the school. The teacher Mr. Adachi-san helped me with all the details of routes etc and even came to pick me up from the station. The students were very motivated and curious. And after my talks they asked me many many questions. I was happy to see such enthusiasm. I was also impressed by their English knowledge, they understood me very well and also spoke English quite well. It ws a great experience for me and I thank JSPS for providing me this opportunity.

---

- 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。) :