

(For JSPS Fellow)

Form B-5

Date (日付) 26/06/2017

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

- Participating school (学校名) :
福井県立若狭高等学校 (Wakasa SHS)

- 15/06/2017 Date (実施日時) :
(Date/Month/Year:日/月/年)

- Lecture title (講演題目) :
What do we know about our Universe?

- Name and title of your company (同行者 職・氏名)

Department of Physics, Kyoto University

- Lecture format (講演形式) :

◆Lecture time (講演時間) 75 min (分), Q&A time (質疑応答時間) 30 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

- 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.

- Overall advice or comments to future participants in the program (今後の講師へのアドバイス) :

It is good to know in advance how comfortable the students are with English. Also it helps to send in the talk slides so that students can go over them in advance.

- Other noteworthy information (その他特筆すべき事項) :

The talk was very well organised. I thank the teachers at the Wakasa school, especially Mizutani-san for her cooperation.

- Impressions and opinions from a company (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。)

No one accompanied me.