

(For JSPS Fellow)

Form B-2
(FY2018)

Date (日付)
27/09/2018 (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): Yi-Peng WU (ID No. P17322)

- Participating school (学校名): Kawagoe Girl's Senior High School

- Date (実施日時): 20/09/2018 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): What is Inflation in Cosmology?

- Name and title of your accompanying person (講義補助者 職・氏名)

Ph.D Student/ Hiroaki Tahara

- Lecture format (講演形式):

◆Lecture time (講演時間) 70 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))

Keynote slides used, projector used

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

In the first part of my talk, I briefly introduced myself and some interesting information about my hometown. Next, I introduced my working place, including the campus where my office is located. I talked about the organization and some short history of my research center. Since I mentioned that our group is working on topics of cosmology, I then tried to explain what is the difference of "cosmology" from astronomy to the audiences, using a cup of corn soup as an analogy. After that I can start to talk about my research topic, that is "inflation" in cosmology. To begin with, I used a short movie made by the European Space Agency to show the formation of stars, galaxies and cluster of galaxies, which finally form the large scale structures of the Universe. I tried to explain why we need the theory of inflation to solve the problems for the standard Big Bang cosmology due to the results from cosmic microwave background observations. I used the horizon problem as an example to show that how the inflating spatial distance can give an answer to the homogeneity and isotropy. In the last part of my talk, I tried to explain the idea how inflation can also predict the structure of the Universe that we have observed today. Finally, I concluded my talk with a short history of the development of inflation in cosmology.

- Overall advice or comments to future participants in the program (今後の講師へのアドバイス):
The students might be shy at the beginning, but they turned to asked a lot of questions little by little if we keep encourage them to do so.

- Other noteworthy information (その他特筆すべき事項):
Students in this class are very good in English and inquisitive. Some students can even ask me questions directly in English and many students stay after my talk to ask more questions during the lunch time. I was very impressed by the outstanding response from the students.

- Impressions and comments from the accompanying person (講義補助者の方から、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。)

本事業は研究者と高校生が直接やり取りをすることで、高校生の科学に対する関心を養うという優れた目的を持ち、我々は、高校生と対面して説明する貴重な機会を得ることができました。彼らの知的好奇心の源泉を窺い、その増幅の一助を我々が担うことができたと感じ、参加の意義を見いだすことができました。このような機会を与えられたことに感謝します。