

(For JSPS Fellow)

Form B-2  
(FY2018)

Date (日付)  
20/02/2019 (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): Sanjin Benic (ID No. P17323)
- Participating school (学校名): Jonan Ryoso Senior High School, Kyoto
- Date (実施日時): 06/02/2019 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): What is inside the proton?
- Name and title of your accompanying person (講義補助者 職・氏名)  
Yoshikazu Hagiwara, PhD student Kyoto University, 3rd year
- Lecture format (講演形式):
  - ◆Lecture time (講演時間) 2x50 min (分), Q&A time (質疑応答時間) 10 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))  
Panel presentation
- Lecture summary (講演概要): Please summary your lecture 200-500 words.

The lecture focused on the elementary particles inside the proton called quarks and gluons. I gave a brief introduction on forces in nature and some important elementary particles. I explained how we discovered quarks and gluons by using analogy of how we discovered the nuclues. I explained what is the strong force and how this force is different from the electromagnetic force where I introduced the concept of strong charge or "color". I finally explained what is our understanding of what is inside the proton, and how the content of the proton changes with the resolution (or energy) by which we observe the proton in experiment. Finally, I explained my research in Japan which is about proton structure at very high energy.

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

Use simple english words and speak slowly. Try to encourage students to ask questions and also ask questions to students and encourage them to reply. Presentation should overall be simple but captivating to the imagination of the students so we should find some good balance. It is very useful to have an accompanying person for translations of key parts. In my case, the japanese translation was about 10-20% of the seminar.

Must be typed

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

- 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。)