

(For JSPS Fellow)

Form B-5

Date (日付)

17/7/2013 (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): Krcmar Roman (ID No. P 12815)

- Participating school (学校名): Nanao High School

- Date (実施日時): 11/7/2013 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) Being Roman Krcmar

(in Japanese)

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

My lecture was divided into two parts.

First part of the lecture was dedicated to Slovakia and my life path. I have presented basic information about Slovakia's history, economy, nature and population. Whenever it was possible I compared these information to Japan. At the end of these part I presented my life path. From my elementary school years through high school, university and phd study to my postdoc years. I also informed about my branch of physics. After the first part I gave students time for questions and small break.

Second part of my lecture was dedicated to statistical physics. I introduced students to the notion of the state in classical mechanics. Then I presented basics of probability theory used in statistical mechanics. After that I described simple model of magnetism, classical Ising model. Using this model I illustrated Boltzman distribution. Then I proceed with simple Monte Carlo program for classical Ising model. Using outcome from Monte Carlo program I presented different phases of Ising model and discussed the concept of phase transition. At the end of the lecture I illustrated major tool of my research, Renormalization. As a conclusion I illustrated this technique by performing coarse graining at two snapshots of different phases produced by Monte Carlo program. At the end I gave students time for questions.

- Language used (使用言語): English

- Lecture format (講演形式): pdf + Mathematica notebook

◆Lecture time (講演時間) 40+45 min (分), Q&A time (質疑応答時間) 5+5 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))

Presentation with 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))

no

◆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。):