

(For JSPS Fellow)

Form B-5

Date (日付)

21/10/2016 (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): Dmitry Kolomenskiy (ID No. P15061)
- Participating school (学校名): Senior High School at Komaba, University of Tsukuba
- Date (実施日時): 15/10/2016 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) Animal and bio-inspired flight

(in Japanese)

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

The lecture has offered an introduction to animal flight research from engineer's viewpoint. I have shown how the flight of birds had influenced the early development of aeronautics, and talked about the recent progress in construction of micro aerial vehicles. Special attention has been given to the numerical modelling. I have discussed the basic rules of aerodynamics which explain how airplanes and birds are able to fly, what is similar and what is different between them. I have then focused on the flapping flight of birds, bats and insects, showing some examples of the technologies that help to understand how animals fly. I have also talked about the newest flapping-wing biomimetic robots that are as small as insects. After that, I introduced some basic ideas of the numerical modelling and computational fluid dynamics. Finally, I talked about some general aspects of researcher's life.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 80 min (分), Q&A time (質疑応答時間) 25 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, conducted a mechanical flapper demonstration

◆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))

Assistance by the school teachers

◆Name and title of accompanied person (同行者 職・氏名)

N/A

◆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。):