

**The Global COE Program**  
**“The Next Generation of Physics, Spun from Universality and Emergence”**  
**Bilateral International Exchange Program (BIEP, invite) report**

Send report to: Your responsible Professor in Kyoto University

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**Invited Student**

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Name and Position of Ph.D. advisor	Harvey Reall, Reader
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**Responsible Researcher in Kyoto University**

Name	Tetsuya Shiromizu
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**Research Project**

Title	Higher dimensional general relativity
Duration	One month

**Please summarize your activities and results during your stay in Kyoto University. Also please describe how your stay has been beneficial to the graduate students in the host institute. You can add a sheet, if you need more space. You can also write any comments and requests to the GCOE program.**

My stay at Kyoto University has been very beneficial. I have been exposed to research interests of group members in the general relativity group, some of which I was not very familiar with before.

The many discussions I have had with other group members has extended my knowledge of certain aspects of general relativity that I had not appreciated before. As well as informal and structured discussions I attended some of the talks in the “Massive gravity” workshop organised by Prof. Shiromizu at the Yukawa Institute. Although, this subject is not of direct relevance to me, it was interesting to familiarise myself with work done in this area. Perhaps of more relevance and direct benefit was the informal meeting that Prof Shiromizu organised on general relativity, which was attended by researchers from both Kyoto and Osaka. I gave a talk in this meeting on my recent research and also attended others' talks on their current research interests.

During my time in Kyoto I have started a collaboration with two graduate students in Kyoto, Seiju Ohashi and Tomohiro Takahashi. The project is well-defined and will hopefully give interesting results. In addition, I have been thinking about other projects, particularly, one suggested to me by Prof Shiromizu, which I hope to continue to think about.

I have thoroughly enjoyed my time at Kyoto university. It has been a very productive and unique experience. I would like to thank the GCOE for giving me this opportunity. I would like to thank the graduate students in the theoretical astrophysics group

for their extremely warm and friendly hospitality. Finally, and foremost, I would like to thank Prof Shiromizu, for hosting me here in Kyoto and ensuring that my time here has been productive and beneficial.