

Supplementary Information

YSS participants are guaranteed to go on exchange in one of the following universities:

North America

- University of California (Berkeley and Los Angeles)
- University of Chicago
- Columbia University
- Johns Hopkins University
- Stanford University
- Yale University

Europe

- University of Cambridge
- Imperial College London
- University of Oxford

Examples of institutions in which Overseas Research Fellowship has been held in the past years:

North America

- California Institute of Technology
- Columbia University
- Cornell University
- MIT
- Stanford University
- University of California at Berkeley
- University of California at Los Angeles

Europe

- CERN
- University of Cambridge
- University College London

Features of 6901 Bachelor of Science Programme

- a choice of 16 Science majors within the programme

Astronomy

Biochemistry

Biological Sciences

Chemistry

Decision Analytics

Earth System Science

Ecology & Biodiversity

Environmental Science

Food & Nutritional Science

Geology

Mathematics

Mathematics/ Physics

Molecular Biology & Biotechnology

Physics

Risk Management

Statistics

- declare major by the end of the second year of study
- no quota for each major
- easy to change majors
- additional major and minor options in Science or non-Science disciplines
- academic advisory system

The HKDSE “level to score” conversion is as follows:

Category A Core and Elective Subjects and Extended Module 1 or Module 2 of Mathematics								
Level	5**	5*	5	4	3	2	1	Others
Score	7	6	5	4	3	2	1	0

Student Sharing on Engagement in Early Research Experience

Student Profile

Gabriel Gallardo

Year 4 BSc student (major in Physics and minor in Computer Science) enrolled through JUPAS in 2012

Final year project at Department of Physics 2015-16

Project title: Searching for new physics at the ATLAS experiment at the LHC

Supervisor: Dr Yanjun Tu, Department of Physics, The University of Hong Kong

Participant of Overseas Research Fellowship 2014-15

Laboratory: CERN, Switzerland

Project title: Measuring electron charge misidentification rate for SUSY analysis at ATLAS using tag-and-probe

Co-supervisors: Dr Yanjun Tu, Department of Physics, The University of Hong Kong and Prof Junjie Zhu, Department of Physics, University of Michigan

Exchange study at University of California, Irvine 2014-15

Hear from Gabriel

In the summer of 2015, I went to work at CERN, the world's largest particle physics laboratory. I worked under the supervision of Dr Yanjun Tu (The University of Hong Kong) and Professor Junjie Zhu (The University of Michigan). I was supported by the Overseas Research Fellowship of Faculty of Science and the Overseas Research Programme of Department of Physics, The University of Hong Kong.

While at CERN, I gained hands on experience in doing research. My project was data analysis, which involved writing code to interpret the data given to us by the experiment. Being at CERN, I was surrounded by many experts. I collaborated with them, and they were able to provide me with insights that helped me complete my project well.

During my stay, CERN held its annual summer school for visiting undergraduate and postgraduate students. Every morning for 6 weeks, they had 3 hours of lectures on physics, engineering, and astronomy. I attended the lectures every day. Not only was this a great learning experience, it was also a great opportunity to make friends from all around the world.

Through discussions with my new friends and through the lectures, I learned about all of the work that was being done at CERN, including materials testing, computer simulations, theory development etc. This made me see how big the projects at CERN truly are, and how everyone diligently does their own small part to contribute to something bigger than themselves. In my own experiment, ATLAS, I was only one of over 3,000 collaborators!

I spent time with my friends from all around the world. We frequently ate together, went to swim and get ice-cream in the evenings, we even travelled together over the weekends. Being with them helped me expand my horizons, learn about different cultures and languages, and learn to talk with people from different backgrounds. I have made lifelong friends this summer.

Overall, the experience was very rewarding academically, professionally, and personally. I look forward to continuing my work in particle physics with HKU and with CERN.

Upon graduation, I look forward to continuing my work in Dr Tu's team and visiting CERN again this summer to do research. After I have gained some experience as a research assistant, I will plan to further my studies in the future.