



The National University of Singapore's first Physics Immersion Program in Germany was recently concluded, lasting from 3-23 July 2007. The three week long program was the fruit of countless hours of careful planning and consideration by two prominent professors from the department – Prof. Berthold-Georg Englert and A/P Thomas Osipowicz. The two weeks spent in München (planned by Prof. Englert) and the one week spent in Göttingen (Prof. Osipowicz) proved to be a fun-filled learning journey for all 26 students who participated in this program.

The mainstay Physics 'diet' of the program participants consisted mainly of trips to the respective universities of the two cities – Ludwig-Maximilians-Universität (München) and Georg-August-Universität (Göttingen), as well as the research institutes affiliated to these universities.

In München, the participants were treated to an exciting colloquium on the current research climate of string theory, as well as a lecture on the use of laser-heated convection currents to manipulate biological systems at a micro-scale. Other lectures (including one on cosmology by a rather eccentric Russian professor) complemented the sharing

sessions by graduate students from LMU on their research work, opening our eyes to the wide variety of research fields available in the university. A trip to the high-security nuclear research reactor provided icing on the cake for the program participants.

Of course, München was by no means all work and no play. After all, what immersion program can be complete without the beer, sausages, and parties. Trip participants were fortunate to have their trip coincide with LMU's Summer Party, a major university highlight for the year. The grand, solemn grounds of the university were turned into a stunning blend of disco lights, music, and live bands. With some encouragement and a few beers, one of the trip participants was even game enough to take on the bull-riding machine! A visit to the world-famous Neuschwanstein castle, the Deutsches Museum (the largest science museum in Germany) as well as to two observatories at the top of the Wendelstein – a 1845m high mountain in the Bavarian Alps, left students breathless.

In contrast, the small, quiet town of Göttingen provided us with less grand moments, but with a deeper insight into how an elite research culture can arise from a town with a population less than that of Ang Mo Kio's. Boasting 42 Nobel laureates, GAU can definitely claim a place alongside other famous universities in research history. Famous physicists and mathematicians such as Max Planck, Karl Schwarzschild, Werner Heisenberg, Emmy Noether, and Hermann Weyl as well as many more, seemed to come alive as we visited the university, as well as the city cemetery where many of them are buried. Even the street names spoke for themselves – trip participants stayed right across Albert



Einstein Street. Students also attended tours of the various research laboratories in the university, such as a particle accelerator research group and attended lectures on particle physics, astrophysics, and surface science (delivered by Prof. Osipowicz's own PhD Supervisor!). A visit to the scenic medieval town of Hannoversch Münden, rounded off the visit to Göttingen.



(not forgetting their dinner and ice cream treats). We would also like to thank the NUS Department of Physics, as well as the Faculty of Science, for sponsoring this trip. We hope that this immersion program will be held again in the future so that other students may have a chance to benefit from the experience as much as we have.

Beer, sausages, and roasted pork knuckles forever!

Participants of the first Germany Immersion Program would like to extend their sincerest thanks to Prof. Englert and Prof. Osipowicz for organizing this incredible experience for us

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