

Optical Group Travel Grant Scheme Report

CLEO /QELS May 21-26, 2006 in Long Beach
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I am very grateful for receiving the IOP Optical Group Travel Award, which gave me the chance to attend CLEO/QELS May 21-26, 2006 in Long Beach. This was my first international conference and it was exciting to experience this large and prestigious meeting in optics and photonics that brings together the internationally leading researchers in the many, highly specialised topics of that area.

In preparation of the conference I made a detailed plan about which talks would be most useful for me to attend, since there were up to 16 different sessions in parallel. I chose sessions that were closely related to my research and presenters I already knew the names of from papers I had read, plenary/tutorial sessions and invited talks to provided me with insights into the optics and photonics research as a whole, as well as topics I had the feeling I know nothing about but want to learn more. Furthermore, I printed my own business cards, which are very useful at a conference but students do not normally have them.

I presented the major results of my PhD project to date in one talk and one poster. My PhD studies explore the creation of localised refractive index changes in transparent polymers, such as poly(methyl methacrylate) (PMMA), with ultra-short laser pulses. Probing the photochemical process helps to optimise the production of useful photonic structures and components such as fibre and bulk gratings, waveguides and photonic crystals. After the talk, with an audience of about 150 people, and during the poster session I was approached by many people with interesting thoughts and questions. A lot of interest was directed to the photo-modification pathways of the material. I handed out coloured A4 prints to interested people (28 in numbers) to help them remember visiting my poster. Contacts to UK researchers (Universities of Aston and Southampton; Imperial Collage London) as well international contacts (Universities of California/Davis, Toronto, Sydney, Denmark and Gottingen; Max-Borne-Institute Berlin) were established. Receiving specialist feedback for my methodology and results from people working in similar areas gave me opportunity to reflect my work. This will help filling research gaps in the final year of my studies and focusing my mind for the writing up period.

In general the progress in laser micro- and nano-structuring received much attention; laser sources in the Mid-IR and the power scaling of fibre lasers showed high interest, and fibre optics talks often involved speciality fibres properties and applications.

I also enjoyed the very well organised student activities such as the breakfast with the OSA board members, an excellent networking event where I learned how OSA is organised and met the leaders of the conference, and especially the woman's lunch, where Professor Ursula Keller from ETG Zurich shared her experiences about working as a physicist and having a family in a highly enthusiastic talk.

The conference gave great opportunities to meet interesting people from all over the globe and to get new ideas. Many of the people I met, I have already been e-mailing after the conference in order to keep in touch, continue sharing thoughts in between conferences and to progress common ideas and collaboration. I can highly recommend attending CLEO.