

Conference report: ASC 2016

Written and attended by Tom Mitchell-Williams

I attended the 50<sup>th</sup> anniversary Applied Superconductivity Conference (ASC) in Denver, Colorado between the 4<sup>th</sup> and 9<sup>th</sup> September 2016. It was a very successful conference, where I was able to make several new contacts and strengthen existing ones. Specifically, I received a proposal to start a collaboration with a research group in Houston, Texas.

Particular highlights of the programme included two of the plenaries, by Prof. David Larbalestier and Prof. Carmine Santore. Both of who provided excellent overviews of the historical and recent progress in applied superconductivity. Also a talk by Prof. Wilfried Goldacker on a new cabling technique for superconducting tape provided the welcome news that there are large scale, particle accelerator applications that may require wider superconducting tape. This is particularly relevant for two significant projects in our research group on the use of stacks of superconducting tape as trapped field magnets.

Furthermore, the poster sessions were very valuable with the opportunity to discuss research in detail with a large number of international scientists. A particularly helpful poster provided information about a new open access database on the properties of superconducting wires available from commercial suppliers. Additionally, a paper presented by an Italian research group provided an insight into why some of our chemical solution routes, which we use to produce patterned superconducting films via inkjet printing, have failed and the potential remedy to correct the process. This will be especially important as I finish my PhD within the next six months.

My talk was well received and it was encouraging to hear from academics and commercial superconductor suppliers that they thought the concept I presented, on a new method for producing low AC loss superconducting tapes, was interesting and novel. The work has also strengthened an existing collaboration with both an industrial partner in Russia and academic partners in Slovakia.

The social schedule of the conference was generally very well organised and provided me with the opportunity for more informal networking, which has been important as I reach a critical stage in my academic career. The decision about whether to and then where to apply for post-doc positions has been influenced by the more informal meetings with researchers from different institutions.

After the intense conference schedule, I was able to see some of the "Mile High City" and took a break following the conference to explore Colorado further. It was my first trip to the USA and the Rocky Mountain National Park was a spectacular place to be able to spend time hiking and after the conference.