

EUCAS 2015: An Overview and General Conclusions

October 8, 2015 (HE105). Professor Pascal Tiscador, the Chair of the successful EUCAS 2015 conference, which ended on September 10, 2015, provide the edited text of his final conference talk presenting general conclusions from that meeting. We publish it below with several photos highlighting various events of EUCAS 2015.

The 2015 European Conference on Applied Superconductivity (EUCAS) was held in the Convention Centre of Lyon, France, September 6 to 10, 2015. About 1100 people gathered at the meeting, including 251 students and 46 accompanying persons. The attendance was even slightly higher than that at EUCAS 2013 held in Genova, Italy, in 2013 (1055 participants).

From the relatively modest first meeting at Göttingen, Germany, back in 1993, EUCAS evolved into a major international conference in the field of applied superconductivity. Despite its name, EUCAS is a fully international conference with about half of the participants coming from outside of Europe. I thank them for their long journey to Lyon and extend these thanks especially to our Japanese colleagues, who represented the single largest national group with about 20 % of attendees.

Superconductivity is often a hidden technology (how many patients know that MRI uses superconductivity?), but it is an outstanding enabling technology for many fields, including health, energy, quest of our origins and others. We have discussed both the latest research results, but also practical developments and applications. SC FCL are For example, after we promoted their use, the superconducting fault current limiters became now off-the-shelf devices used with great interest in electric power grids. One of our missions is also to alert the community of the possible future breakthroughs. An example is the special session on superconducting computing. Another is superconductivity at very high temperature and pressure, which has been recently discovered in sulphur hydride. Indeed, superconductivity is well alive and a very dynamic field extending from materials to applications.

EUCAS is organized on behalf of the European Society of Applied Superconductivity (ESAS). This 12th conference is joined by another prestigious society: IEEE Council on Superconductivity (IEEE CSC), with whom we have experienced an outstanding cooperation. Conference papers will be published, after a peer review, in a special issue of *IEEE Transactions on Applied Superconductivity* (TASC) in 2016. The Editor-in-Chief of the EUCAS 2015 special issue is Philippe Masson. Also, IEEE-CSC sponsors several events for students such as the conference dinner (gala), grants, and student lunches. Supporting students is a major imperative for IEEE-CSC. I extend my warm “thank you” to IEEE CSC for its strong support of EUCAS.

We received 1060 abstracts from over 50 countries, and the international program committee has put together an extensive program in which we facilitated three special sessions (“The new challenge of Superconducting computing”, “Superconducting applications and solutions from industry and utilities” and “Modelling for applications”), with keynote speakers and round tables. I would like to acknowledge the members of the program committee for their great job. We lined up 10 prestigious plenary speakers who addressed the state of the art of some international projects. We were honoured for their participation and I would like to thank them for finding time in their very busy schedules.

EUCAS 2015 included several award ceremonies:

- The 1st ever ESAS award for excellence in Applied Superconductivity to Wilfried Goldacker of Karlsruhe Institute of Technology (KIT), Germany.
- IEEE award for continuing and significant contributions in the field of Applied Superconductivity to W. Denis Markiewicz of the National High-field Magnet Laboratory, USA (now a Distinguished University Scholar at the Florida State University).
- ESAS Young Researcher Awards to Mayraluna Lao (Materials), Sergey Viktorovich Bakurskiy (Electronics) and Anup Patel (Large Scale).

I would also like to acknowledge the financial support contributions of our industrial and institutional partners. The EUCAS 2015 exhibition gathered 33 booths. Of course, this conference could not be organized without the hard work of the local committee, a large thank you to them as well as to the students who gave a precious help during the conference.

In addition to the main conference program, we organized technical visits: to Grenoble Laboratories September 10, and to CERN or Cadarache (CEA and ITER) or Saclay (CEA-SACM and Neurospin) on September 11.

EUCAS'15 was organized by the Grenoble superconductivity community. It is held in Lyon for practical reasons, in particular to benefit from the large and modern convention centre designed by Renzo Piano. Professor Christophe Ferrari, the President of the Grenoble-Alpes Métropole Urban Community, recalled in the opening ceremony the importance of research, innovation and higher education in Grenoble area: there, one person out of five works in these fields.

The gala dinner took place in several restaurants of the old Mercière street in downtown Lyon after a very convivial aperitif time on the street. The students spent the evening in Ninkasi Gerland, the most-friendly place in the Lyon cultural scene. They enjoy a music group among other things.

A 4.2 km morning fun run for the bravest took place in the "Parc de la Tête d'Or" facing the Convention Centre.

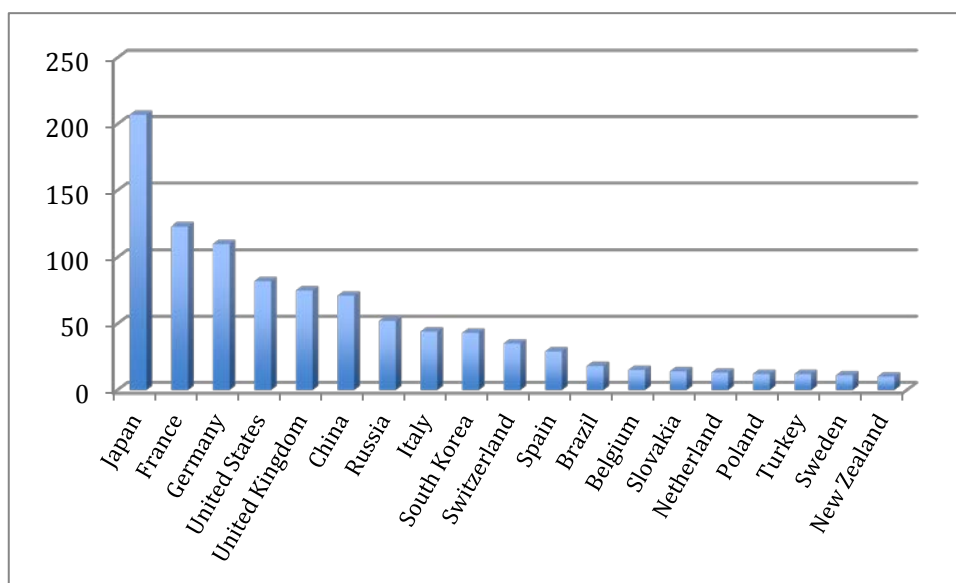
I hope, participants had an exciting and enjoyable conference, with high-quality scientific exchanges and many opportunities to build their networks, to reinforce or initiate collaborations and foster discussions. Certainly, they brought back home fond memories of the city of Lyon and its gastronomy, with the "bouchons" in particular. The weather was wonderful.

The next EUCAS will be held in Geneva, Switzerland, from September 17th to 22nd, 2017. It will be co-chaired by Lucas Bottura and Lucio Rossi.

Pascal Tixador

Professor at Grenoble-INP

EUCAS 2015 Chairman



Participant distribution for countries with more than 10 participants (companions not included).

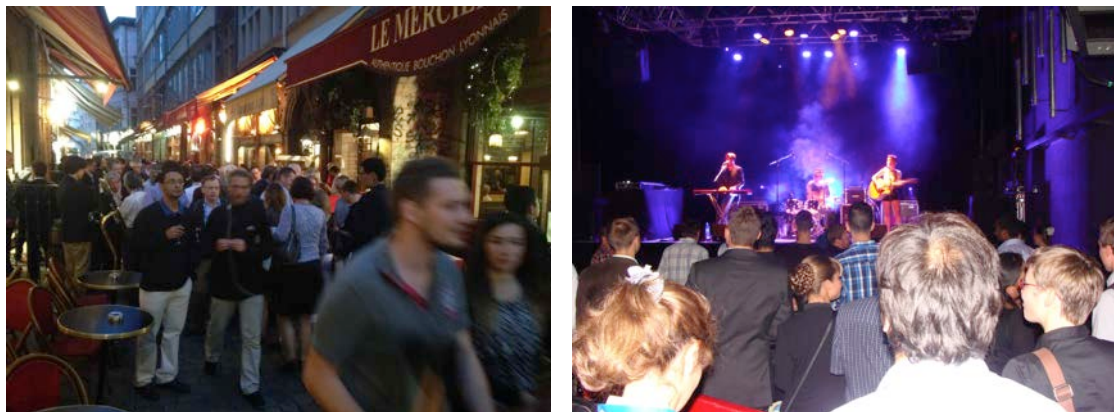


Award ceremonies during EUCAS 2015

From left to right: the ESAS Award ([PA29](#)), IEEE Award ([PA31](#)) and ESAS Young Researcher Prize ([PA30](#)).



Plenary presentation in Lumière auditorium and poster session during EUCAS 2015



Gala dinners at EUCAS 2015

From left to right: in the restaurants of Mercière street and in Ninkasi for students



The bravest in the "Parc de la Tête d'Or" for EUCAS 2015 fun run and a "mag surf" test.