



Centre for Advanced Structural Ceramics (CASC)

We are a UK centre focused on structural ceramics research and teaching, world-leading in this key area and developing links with leading industrial and academic groups.

December 2018

14th Newsletter

CASC continues its activities supported by the **Industrial Consortium** formed by Morgan Advanced Materials, Asahi Glass, SAFRAN and John Crane. More than 30 students and postdoctoral researchers are working on projects funded by a variety of sources including EPSRC, EU and Industry.



Ceramics Summer School

The ninth edition of CASC Ceramic's Summer School took place from the **10th to the 12th of September**.

The first day was focused on the **mechanical properties of Ceramics** and their use in **Thermal Barrier Coatings and Solid Oxide Fuel Cells**, with the talks of **Dr Finn Giuliani** (*Imperial College*), **Professor Ping Xiao** (*Manchester University*) and **Professor Alan Atkinson** (*Imperial College*).

On Tuesday, we also had the visit from some of the members of the **Additive Manufacturing Initiative for Transnational Innovation in Europe (AMITIE)** project as the day was focused on **Additive Manufacturing**. For this, we had a **masterclasses on the basics of additive manufacturing** by **Stephane Richaud** (*Saint Gobain*) and **Dr Andrea Zocca** (*BAM University and Young Ceramists Additive Manufacturing Network*) together with **two lab sessions** focused on 3D Printing and on the demonstration of some of the mechanical properties discussed on the first day.

We finished the ninth edition of the Summer School with the invited talk of **Dr Rachid M'Saoubi** (*SECO Tools*) that gave us some **industrial examples of the use of ceramics**.



2018 Summer School attendees

Sir Richard Brook Prize

The 2017 Sir Richard Brook Prize was awarded on the 6th of December to **Dr Tahsin Ali Kassam**, from Brunel University.

Nominations for the **2018 edition** are closed and being evaluated.

Former winners include students from **Brunel University, Imperial College, Leeds University and University of Manchester**.



CASC Goodbyes

- **Dr Dan Glymond** left CASC in August as he joined Washington Mills, Manchester, UK.

CASC New Appointees

- **Dr Dongwoo Kang** joined CASC in July and will work under the supervision of Professor Eduardo Saiz on an **ArcelorMittal** project for a year.
- **Dr Oriol Gavaldà** joined CASC in October and will work under the supervision of Professor Eduardo Saiz, Professor Luc Vandeperre, Dr Finn Giuliani and Dr Nasrin Al Nasiri on a **Rolls Royce** project for two years.
- **Ms Shitong Zhou** and **Mr Muhammed Maktari** started their PhD under the supervision of **Professor Eduardo Saiz**
- **Mr Jack Lyons** started his PhD under the supervision of **Dr Finn Giuliani**.
- **Mr Rowan Hedgecock** started his PhD under the supervision of **Professor Luc Vandeperre**.
- **Mr Ben Currie** started his PhD under the supervision of **Dr Samuel Humphry-Baker**.

Good news

- We welcome **Dr Florian Bouville** and **Dr Katharina Marquardt**, as new **Ceramics Lecturers**.
- **Dr Luc Vandeperre** has been promoted to **Professor** and **Dr Finn Giuliani** has been promoted to **Reader**. We would like to congratulate both of them on their promotions.
- **Professor Bill Lee**, CASC founder and Co-Director of the Institute for Security Science and Technology talked to [Imperial College news](#) about the new MSc that encourages graduates students to address national security.
- **Mr Wirat Lerdprom** wrote a column on the [current challenges for whitewares industry](#) for the October/November edition of the American Ceramic Society bulletin.
- **Mr Tommaso Giovannini** defended his PhD on the 25th of October. Congrats Dr Giovannini!
- **Mr Wirat Lerdprom** has received a Highly Commended award in the Engineering and Technology category at the [Anglo-Thai Society Education Awards 2018](#). The award was presented at a reception held on Friday, 16th November 2018 at the Oriental Club, London.

CASC Diary

- 18th January 2019 ➤ *CASC Industry Day*
- 27th January-1st February 2019 ➤ **Professor Luc Vandeperre and Dr Florian Bouville** will attend the *43rd International Conference and Expo on Advanced Ceramics and Composites* in Daytona, Florida, USA.

Out and about

- 4-14 June 2018 ➤ **Dr Daniel Glymond** attended the *14th International Ceramics Congress, CIMTEC 2018* in Perugia, Italy.
- 17-21 June 2018 ➤ **Professor Eduardo Saiz** organised the Bioinspired Ceramics and Composites session at the *7th International Congress on Ceramics* in Foz do Iguazu, Brasil. **Dr Samuel Humphry-Baker** also attended the meeting.
- 18-19 June 2018 ➤ **Dr Finn Giuliani** attended the *UK-Israel microscopy summer school*, (Israel). He presented his work on Tracking Deformation in Small Volumes by in-situ Microbeam Laue Diffraction.
- 20-22 June 2018 ➤ **Dr Finn Giuliani** attended (as invited speaker) the *2018 Spring E-MRS meeting in Strasbourg, France*.
- 2-6 July 2018 ➤ **Dr Finn Giuliani** attended (as invited speaker) the *10th European Solid Mechanics Conference in Bologna, Italy*.
- 12th September 2018 ➤ **Dr Alba Matas Adams and Dr Iuliia Elizarova** attended the annual *AMITIE meeting* that took place at Imperial College, London, UK.
- 24-25 September 2018 ➤ **Dr Alba Matas Adams** attended the *6th Follow up RESLAG meeting* in Imperial College, London. She presented her results on the mechanical properties of refractory materials.
- 26-27 September 2018 ➤ **Ms Jindaporn Juthapakdeeprasert** attended the *International Colloquium Refractories* in Aachen, Germany. Her talk was titled: CeO₂ and CePO₄ -containing high emissivity coatings for basic refractory bricks.
- 14-18 October 2018 ➤ **Dr Finn Giuliani** was one of the organisers of the *Small-Scale Properties of Materials and Length-scale Phenomena symposium at the MS&T 18* hold in Ohio, USA, where **Dr Giorgio Sernicola** also gave a talk.
- 13th November 2018 ➤ **Professor Eduardo Saiz** attended the *7th Follow up RESLAG meeting* in Vitoria, Spain.
- 4-5 December 2018 ➤ **Professor Eduardo Saiz, Prof Luc Vandeperre and Dr Iuliia Elizarova** attended the *quarterly MAPP meeting* in Oxford, UK.

CASC Anniversary

On the 14th of September we celebrated our 10 year anniversary.

For this special day, we counted with the attendance and help of old and new CASC members.

We started our day with CASC founder, Prof Bill Lee that took us through how CASC started and all the process needed to make CASC what it is today, it was amazing the pictures of our labs and office a few years back!

We then had a great talk by Professor Bill Clegg that was followed by the presentations of present and past CASC members (Dr Salvador Eslava from Bath University, Mr Jonathan Phillips from Morgan Advanced Materials, Dr Samuel Humphry-Baker and Dr Finn Giuliani from CASC).

We finished the first part of our day with a great and funny presentation from Professor Luc Vandeperre, that showed us what the future holds for CASC.

We couldn't end CASC anniversary without some type of social activity, so we all went to do some group bonding activity. Nothing gets people together better than bowling. And to close the day, we had a "family" dinner.

