

15th Anglo-French Physical Acoustics Conference (AFPAC2016)

The 15th Anglo-French Physical Acoustics Conference (AFPAC) was held at Selsdon Park Hotel, Surrey, United Kingdom, on 13-15 January 2016. Over 65 papers were presented at the conference. There were over 80 delegates from institutions covering seven countries. The event was an excellent forum to discuss the broad range of topics that the field of physical acoustics encompasses.

For the first time, AFPAC joined forces with the National Physical Laboratory Cavitation Forum, a bi-annual event organised by the UK National Standards Laboratory. This meeting is specifically dedicated to applications of high power ultrasound and involves communities from academia, and cleaning, processing and medical industries.

AFPAC featured a special session on Biomedical Ultrasound, with presentations reflecting the state-of-the-art of this rapidly growing area of research. The topics discussed included high-intensity focused ultrasound, histotripsy, ultrasound computed tomography, acoustic particle palpation and sub-optical wavelength acoustic microscopy of live cells. Prof Robin Cleveland (University of Oxford, UK) provided an invited talk on the topic of "Ultrasonic surgery: using sound to heal", which covered an overview of therapeutic ultrasound applications, including high-intensity focused ultrasound, histotripsy and lithotripsy.

Prof Tim Leighton (University of Southampton, UK) provided an invited talk entitled "The acoustic bubble", which gave a fascinating insight into the world of bubbles and their interactions with sound fields, in applications ranging from marine biology through to cleaning.

Prof Olivier Dazel (Université du Maine, France) shared his extensive knowledge of the modelling of sound absorbing materials and Prof Christ Glorieux (KU Leuven, Belgium) provided a captivating insight into the applications of photothermal and photoacoustic methods.

Other topics discussed at the meeting included monitoring of concentrations in super-saturated aqueous solutions, acoustic tweezers, ultrasound tissue characterisation, targeted drug delivery, surface acoustic waves, lamb wave propagation, poroelastic materials, phononic crystals, ultrasonic defect characterisation and solitons.

The 2015 Bob Chivers prize was awarded to Dr Bo Lan (Imperial College London) for his paper entitled "Experimental and computational studies of ultrasound wave propagation in hexagonal close-packed polycrystals for texture detection", published in *Acta Materialia*.

The UK organising committee was particularly happy to welcome the many French contributors that travelled to Selsdon Park and would like to thank Alain Lhémery and the Société Française d'Acoustique (SFA) for publicising the event in France. We are happy to announce that many of the presented papers will be published in the conference proceedings in *Journal of Physics: Conference Series*. We would also like to draw the reader's

attention to the upcoming 16th AFPAC conference that is scheduled to take place in January 2017 at the Laboratoire de Mécanique et d'Acoustique, Marseilles, France.

Dr Pierre Gélat (UCL, United Kingdom), Physical Acoustics Group, Chair.

