

16th Anglo-French Physical Acoustics Conference (AFPAC 2017)
Laboratoire de Mécanique et d'Acoustique, Marseille, France
23-25 January 2017

The 16th Anglo-French Physical Acoustics Conference (AFPAC) was held on 23-25 January 2017 at the Laboratoire de Mécanique et d'Acoustique, Marseille, France. A total of 50 papers were presented at the conference, which featured over 60 delegates.

The first day of AFPAC kicked off with a presentation by Dr Claudia Fritz (Institut Jean Le Rond d'Alembert, Paris, France) who provided a fascinating insight into the qualities of Stradivarius versus modern-built violins, with surprising results. A diverse range of physical acoustics topics were broached on this day, ranging from the experimental ultrasonic characterisation of cultural heritage reproductions, acoustic emissions as a tribochemical sensing technique, acoustic characterisation of microbubble clouds and defect characterisation using ultrasonic arrays. The first of two Conference Dinners was held at Le Malthazar, in the Vieux-Port area of Marseille, which was followed by drinks at a nearby pub.

The second day featured an invited presentation by Prof Geoff Nash (University of Exeter, UK) on surface acoustic wave-graphene interactions. Other work presented on this day included liquid foams, soap films and acoustic dissipation processes, nonlinear elastic metamaterials, transcostal high-intensity focused ultrasound for the treatment of liver tumours, torsional guided wave EMAT for SHM, the acoustic signature of skin samples for cosmetic applications and a range of numerical methods for NDE. An invited talk was given by Prof Frédéric Padilla (Labtau, INSERM, Lyon, France), who discussed the applications of ultrasound for bone tissue engineering and regenerative medicine. The second Conference Dinner was held at Les Arcenaulx, also in the Vieux-Port area, and offered a selection of locally sourced foods and organic wines. During the Conference Dinner, the 2016 Bob Chivers prize was awarded to Dr Anton Van Pamel (Imperial College London, UK) for his paper entitled "Finite element modelling of elastic wave scattering within a polycrystalline material in two and three dimensions".

On the final day of the conference, Prof Jeff Bamber (Institute of Cancer Research, London, UK) gave an invited talk reviewing elastography as an imaging modality for characterising the biomedical properties of tissue, in research and in clinical medicine. The conference concluded with a tour of the state-of-the-art facilities at the Laboratoire de Mécanique et d'Acoustique.

The French organising committee was particularly happy to welcome the many UK contributors that travelled to Marseille and would like to thank Prof Nader Saffari and the Institute of Physics for publicising the event in the UK. 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 17th AFPAC conference that is scheduled to take place on 17-19 January 2018 at the De Vere Selsdon Estate, Surrey, UK.

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