

# The UK Acoustics Network Newsletter

## November 2020

### Dear UKAN Members

Since the October 2020 newsletter our membership has grown to 1157. The Network must be doing the right things to make it attractive for new members to join. In particular, our webinar programme is a great success. We would like to remind our members to let us know at [info@acoustics.ac.uk](mailto:info@acoustics.ac.uk) what else we can do as a network to support our members and to connect better to a wider research community beyond UKAN. We would also like to remind our members to advertise on the UKAN website any job/PhD opportunities in acoustics.

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#### Events

The run-up for Christmas looks busy. Currently, at least 3 webinars are planned for December 2020: (i) [Waves in Complex Media](#) on 1 December; (ii) [Robot Audition](#) on 3 December; and (iii) [3<sup>rd</sup> Sheffield Workshop on Structural Dynamics](#) on 7-10 December. Also, [Forum Acusticum E-FA2020](#) and [179<sup>th</sup> Meeting of the Acoustical Society of America](#) will be held virtually between 7-11 December. We would like to ask our speakers and webinar organisers to share whenever they can copies of presentations and video footage of their webinars with UKAN. The link to the presentations from our previous webinars is [here](#). We would also like to know the number of people attending each webinar for reporting purposes.

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#### Meeting of the IOA Research Coordination Committee and UKAN

On the 23 November several UKAN members met with members of the Institute of Acoustics (IoA) Research Coordination Committee (RCC). A key topic for the discussion was our future relation with the RCC and setting up the National Centre for Coordination of Acoustics Related Research. It was agreed that the RCC will be the right umbrella for this Centre after the end of the UKAN+ grant in March 2024. We need to work together during the transition period. This Centre can be set up during the life of our UKAN+ grant offering much better training opportunities for researchers working in acoustics, especially early career academics helping them win new research grants working closely with more established researchers and industry, and also helping our members align their work better with the Research Grand Challenges set by the government. There is also a potential of a new IoA membership grade to become open to our PhD/PostDoc members at a reduced fee, half-way between IoA Student (free membership) and Full Membership. We would like to hear your views on how attractive this IoA membership would be for those UKAN members who are not associated with the IoA at the present. More information on the current grades of IoA membership can be found [here](#). This is the [link to the RCC page](#) with information on its Mission and activities.

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### **New Open Access book on acoustics**

Steven Garrett, Emeritus Professor of Acoustics at Penn State University published the second edition of his textbook, *Understanding Acoustics*, which is now available for free download worldwide. This has become possible thanks to the generosity of the [Paul S. Veneklasen Research Foundation](#). To the best of our knowledge this is the first “open access” acoustics textbook. It can be downloaded from the Springer web site through this [link](#). Go to this link and click on “Access this book for free” to download the entire textbook as either a \*.pdf or \*.epub. There is also a 100-page Solution Manual available for all end-of-chapter problems in the second edition. A copy of the Solution Manual can be found [here](#) courtesy of Steven Garrett. The first edition of this book received enthusiastic reviews (e.g., [P. Joseph, Physics Today 70\(10\), 62 \(2017\)](#)). The second edition corrects some first edition errors, includes many improved figures, as well as new material in such areas as the radiation from an un baffled piston, introduction of phasor notation to clearly distinguish complex variables, additional problems, and a much more detailed and comprehensive index. We hope that UKAN members and their students will find this “open access” second edition useful for both instruction and for reference. If any UKAN member would like to review the second edition, send a request for a hard copy to Springer at [Barbara.Amorese@Springer.com](mailto:Barbara.Amorese@Springer.com).

### **Impact of Covid-19 on the Acoustics and Photonics industries in the UK: Autumn 2020 update**

The Covid-19 global pandemic has resulted in unprecedented challenges for businesses in the UK ever since the first lockdown was initiated in March 2020. A survey of the acoustics and photonics industries by John Lincoln in April 2020 was one of the

first ‘temperature checks’ of the impact on UK industry. The [original report](#) from April 2020 provided valued input to government to offer insights into these two essential cross-cutting enabling technology industries as representatives of the UK’s border hi-tech knowledge intensive economy.

Since March 2020, society has continued to adapt as restriction first eased and then returned as the second wave took hold Autumn 2020. A second temperature check has therefore been undertaken to capture the ongoing impact of Covid-19 on acoustics and photonics. The second survey was expanded to include a distinct thread of questions targeting the academic research community. The survey was opened on 3 September 2020 and closed on 30 October 2020 prior to the second national lockdown. The results of that second survey are presented [here](#).

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### **New grants related to acoustics**

UKAN would like to congratulate Professor Bruce Drinkwater and his colleagues at Bristol on winning a new grant from the EPSRC entitled [Fabrication of novel glasses and glass micro-spheres by acoustic levitation and laser heating](#). In this project state-of-the-art [acoustic levitation methods](#) will be developed by this team to process materials at temperatures in excess of 2500K without the need for a container. It is a £517k grant which started this November.

Please get in touch with us if we miss your new grant. We are keen to showcase all new investments in the UK’s acoustics related research in our newsletters.

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Stay well.

Kirill Horoshenkov and Richard Craster