



OCTOBER 15, 2020 | 1:00 PM–6:00 PM ET

Basic Science and Instrumentation

Valuable Ultrasound Specialty Education & Networking Opportunities!

The AIUM Basic Science and Instrumentation Community leaders invite you to join them as they share cutting-edge updates in the field through a half-day program of online lectures, panel discussions, live Q&A, and networking. While ultrasound professionals from all specialties are welcome, this lecture series is particularly beneficial to basic scientists, technologists, technically oriented imaging clinicians, industry researchers, faculty, students, and trainees.

SCHEDULE

(All times are listed in Eastern Daylight Time)

1:00 pm–2:00 pm: Full-Wave Ultrasound Simulation: Methods, Tools, and Applications

T. Douglas Mast (moderator), Ben Cox, Robert McGough, and Gianmarco Pinton

Learning Objectives:

- Describe publicly available tools for full-wave ultrasound simulation;
- Compare capabilities and features of available simulation packages; and
- Identify a simulation tool appropriate for a particular research or development application.

2:00 pm–2:30 pm: Break

2:30 pm–3:30 pm: Not Your Parents' Delay and Sum Beamformer Anymore

Kai E. Thomenius (moderator), Hanna Bendjador, Jeremy Dahl, Ole Marius Rindal, and Jaime Tierney

Learning Objectives:

- Understand new software beamformation methods;
- Appreciate issues and challenges associated with novel beamformers; and
- Identify techniques of interest for your own research.

3:30 pm–4:00pm: Break

4:00 pm–5:00 pm: Primetime Network Programming: A Workshop on Deep Neural Networks in Ultrasound Beamforming

Kenneth Bader (moderator), Brett Byram, and Jaime Tierney

Learning Objectives:

- List available sources to execute the use of deep neural networks in ultrasound beamforming;
- Explain the benefits and limitations of deep neural networks in ultrasound beamforming; and
- Combine source code made available by this workshop to problems of interest.

5:00 pm–6:00 pm: Members-Only Meet the Expert Sessions

AIUM Members interested in further discussion of the session talks with content leaders will have the opportunity to do so through breakout rooms.

REGISTRATION FEES

- **Members:** Free
- **Nonmembers:** \$49—full package only, Best Value: [Join the AIUM](#) and gain **FREE** access to each of the upcoming specialty lecture series sessions and networking breakouts, as well as exclusive resources in our new [Online Learning Center!](#)