

Symposium Technical Chairs' Welcome Letter



Lee Levine

We would like to welcome everyone to the 45th Annual New England iMAPS Symposium! Thanks to all the Session Chairs, we've compiled an engaging program of technical talks on many of today's hot topics that will peak the interest of every Attendee. We hope you take full advantage of the opportunity to interact with the speakers and each other in a learning environment that's only available at this unique one-day symposium. Below is a brief summary to help you on your way and don't forget to spend time in the exhibit hall, because after all, without the support of the exhibitors, this day wouldn't be possible. Enjoy!!!



Dave Saums

Photonics & Optoelectronics Packaging: Mid-Infrared chemical sensors, quantum dot and other advanced lasers, advanced manufacturing, and prototyping of photonic devices will all be featured in this session on Optoelectronic packaging. Speakers from MIT, UMass Lowell, IPG Photonics, and MRSI will discuss their newest products and research in the field of Photonic and Optoelectronic devices.

MEMS: This session covers the latest advancements in MEMS and Nano System packaging. Nanomaterial-based smart patches for low-cost MEMS packaging, Si₃N₄ tuning fork cavity transducers, high-density interposers and ion-milling for MEMs manufacturing will be included in this session covering the challenges of manufacturing micro-mechanical based devices. State of the art techniques and device designs will be shown. Talks by Draper, Worcester Polytechnic, Flex Boston, Innovation Center, and Ion Beam Milling will be featured.

RF & Microwave - Innovations and Emerging Technologies: 5G telecommunications, RF in automotive applications, phase-noise and packaging role in RF devices will all be featured in this session. Analog Devices, Vishay, i3 Microsystems, Holzworth Instrumentation, Dessel Systems, and Intercept Technology/Liberty Packaging will all provide their views on the latest techniques.

Novel Packaging: Novel packaging for medical applications is all about sensors and wearables. Both a wearable vital signs monitor and an implantable wireless neuro stimulator will be featured. Fabrication of a liquid crystal sensor module will be described. MST, Creative Materials, Exceet, Draper and Netzsch will present an exciting session on state of the art electronic packaging for medical applications.

Interconnects: This year the interconnects session will have papers on die attach, wire bonding and plasma cleaning, all back end of the line processes. The die attach papers will discuss both a new nano-material and characterization of die attach cure. The wire bond papers will include a tutorial on the effect of ultrasonics on the welding process and copper heavy wire wedge bonding. The plasma paper will discuss plasma cleaning prior to conformal coating. Papers will be by Netzsch Instruments, UMass Lowell, Process Solutions, Paderborn University (Hesse Mechatronics), and NanoBio Systems.

Printed Electronics: Printed electronics is one of the most rapidly growing segments of our industry. This year five of the six presentations will focus on the printing of additive metallic elements for both structural and electrical conductivity. Printing metals is a leading-edge technology for both wearables and 3-D structures and this year's talks will be from cutting edge companies such as MIT, Draper, RIT, UTRC, Ten Tech LLC, and Analog Devices.

Interactive Poster Session: This year the competition in student papers is really heating up with \$2000 dollars in prizes going to the winners (split between poster and oral presenters) and 16 participants in the poster session! Topics include Printable and Wearable Electronics, FEM, Reliability and Optoelectronics. These students and experts are our future, so please set aside some time to go and talk with each of them to learn what's new on the horizon. Their enthusiasm and interests may be a perfect fit for your organization. Let them show you their work.

Kind Regards,

Lee Levine

A handwritten signature of Lee Levine in black ink.

2018 iMAPS New England Symposium Technical Chairs

Dave Saums

A handwritten signature of Dave Saums in blue ink.