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Emily E. Gallagher
Jed H. Rankin
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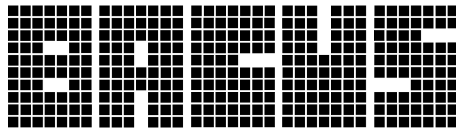

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Introduction

The 2018 SPIE Photomask Technology conference was held 17–19 September, in Monterey, California, co-located for the second time with the EUV Lithography conference. The organizers of the two conferences worked to blend the complementary interests of the two communities to craft a technical program that increased the range of topics while preserving long-held conference traditions. This year's combined conference drew even more attendees than in 2017 and will continue as a joint event next year.

The photomask can be seen either as an enabler or as the limiter of lithography and, by extension, the semiconductor industry roadmap. Papers at the conference reflected both roles. There were traditional mask-making topics and forward-looking studies. Examples of the latter included: the application of deep learning to CDSEM image analysis, future mask absorber materials, and designs for future photoresists. New this year was the speed poster talk session, enabling poster authors to introduce their posters in brief talks to the conference attendees before the poster session. This gave the posters more visibility, while preserving the in-depth discussions that are possible during the poster session. The yearly panel discussion topic reflected the long, slow industry shift towards EUV: "Optical and EUV Masks: Analyzing the HVM Requirements and Capability Differences". It also acknowledges a fact discussed in the 2018 Mask Maker's Survey: fewer than 0.5% of all masks delivered in 2018 were EUV and the industry is still digesting what moving to HVM EUV manufacturing really looks like. While this introduction gives you a sense for the conference, the proceeding papers will be more specifically instructive.

Emily E. Gallagher
Jed H. Rankin