

INTRODUCTION TO LIM FROM THE SERIES CHAIR

THE IS&T LONDON IMAGING MEETING: FUTURE COLOUR IMAGING

Within the proceedings posted to the digital library, you will find the technical papers were presented in the inaugural London Imaging Meeting held on the 29th of September (tutorial day), the 30th of September, and the 1st of October 2020. The program comprised 2 keynotes, 5 focal presentations, 15 orals, 13 posters, and 9 late-breaking posters (the latter are abstract only).

The genesis of the London Imaging Meeting (LIM) began with a conversation we had with the Society of Imaging Science (IS&T) about 18 months ago. We had observed that it was common to attend a day-long technical workshop in London and that these were not only popular, but generally highly oversubscribed. Moreover, the 'day format' typically comprised talks only and there were not related archival papers. And, to pack as much content in as possible the day-workshops were long with little opportunity to speak with the speakers.

We proposed that a two-day conference format could retain the punchy format of the one-day meeting, but make the travel easier (including from Europe) and, crucially, it would also provide a forum for the publication of new archival work. The single night in London would both facilitate researchers meeting each other and be the catalyst for new collaborations.

Importantly, we pitched the LIM concept as a topics-based meeting. This year, the conference was titled "Future Colour Imaging". We reached out to five international experts in colour imaging to give focal talks to seed five sessions: Prof. Jon Hardeberg, NTNU, Norway (multispectral); Prof. Ronnier Luo, Zhejiang University (color science); Prof. Raimondo Schettini, University Milano-Bicocca (learning color imaging); Prof Hannah Smithson, University of Oxford (perception); and, Philipp Urban, Fraunhofer Institute for

Computer Graphics Research IGD (3D printing). On each day we also had a superb Keynote. Prof. Felix Heide, Princeton University, gave a talk titled "Designing Cameras to Detect the 'Invisible': Towards Domain-Specific Computational Imaging", which, among other topics, considered how to place camera pipelines into today's commonly used CNN deep learning framework. Prof. Laurence Maloney, New York University, gave the keynote, "Surface Color Perception in Realistic Scenes: Previews of a Future Color Science". The keynote used the tool of VR to control the presentation of physical stimuli to observers to investigate how accurately we solve the color constancy problem.

There were many strong contenders for the LIM best paper prize including, S. Mohajerani *et al.*, "Illumination-Invariant Image from 4-Channel Images: The Effect of Near-infrared Data in Shadow Removal" (Simon Fraser University); M.Kim *et al.*, "Contrast Sensitivity Functions for HDR Displays" (University of Cambridge); and, Y. Zhu, "Designing a Physically-feasible Colour Filter to Make a Camera More Colorimetric", (University of East Anglia). The best paper prize for LIM was awarded to: P. Backes and J. Fröhlich, "A Practical Approach on Non-regular Sampling and Universal Demosaicing of Raw Image Sensor Data" (Stuttgart Media University).

We thank everyone who helped make LIM a success including the IS&T office, the presenters, the reviewers, our focal speakers and keynotes, and the audience who participated in making the event engaging and vibrant. A special thanks go to the Engineering and Physical Sciences Research Council (EPSRC) who provided funding through the grant EP/S028730/1.

—Prof. Graham Finlayson, LIM Series Chair