

MAM2024
Eurographics Workshop on Material Appearance Modeling

Joint event with

MANER Conference London 2024
– Material Appearance Network for Education and Research –

2 July 2024

Held in conjunction with

The 35th Eurographics Symposium on Rendering
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Organized by:

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Preface

These are the proceedings of a joint event: MAM2024: Eurographics Workshop on Material Appearance Modeling and MANER Conference London 2024 - Material Appearance Network for Education and Research. The purpose of these workshops is to discuss and define open issues in the modeling of material appearance. Acquiring, modeling, editing, understanding, and rendering material appearance are active areas in numerous disciplines including color science, vision science, computer graphics, and computer vision. In these workshops we gather researchers and users of material appearance models to review the progress made in this domain, and what the promising lines of new research are.

The format of the workshop is presentation of positions and ideas followed by questions and comments. Position papers and/or ideas for presentations are submitted by potential speakers, and reviewed by the workshop co-chairs for relevance and clarity. Twelve presentations were accepted, 8 of them with accompanying papers that appear here. The papers are not limited to the form of conventional conference papers. The main purpose of the papers is to summarize topics, report progress, pose problems and suggest research directions, rather than just present finished results.

The full schedule of the event was as follows:

Session 1: Perception/ Color and Spectra/ Reproduction

1:00-1:05 Welcome

H. Rushmeier¹ and J. Y. Hardeberg²

¹Yale University and ²Norwegian University of Science and Technology

1:05-1:20 Can we grasp the color of translucent objects?

D. Gigilashvili, D. Chowdhury, and J. Y. Hardeberg

Norwegian University of Science and Technology

1:20-1:35 A study of observer metamerism for reflectance-induced stimuli

L. Fascione¹ and J. Hanika²

¹NVIDIA and ²Karlsruhe Institute of Technology

1:35-1:50 Spectral reconstruction from RGB imagery: A potential for infinite spectral data? (Presentation only)

J. Y. Hardeberg

Norwegian University of Science and Technology

1:50-2:05 General discussion of color and spectra

2:05-2:15 A hyperspectral data/software ecosystem (Presentation only)

H. Rushmeier

Yale University

2:15-2:30 Psychophysical insights into anisotropic highlights of 3D printed objects

J. Filip and M. Vitek

The Czech Academy of Sciences

2:30 – 2:45 Appearance reproduction using a PolyJet 3D printer and BRDF measurements (Presentation only)

A. Sole

Norwegian University of Science and Technology

2:45- 3:00 General discussion of community resources and physical reproduction

3:00-3:30 REFRESHMENT BREAK

Session 2: Representation/Capture/Wave Optics

3:30- 3:45 Neural texture block compression

S. Fujieda and T. Harada

AMD

3:45 - 4:00 Reflectometer material capture

D. Chan and M. Iwanicki

Activision Central Tech

4:00 – 4:15 Real surface measurement and virtual gonioradiometer for road appearance prediction

K. Xu, M. Ribardière, B. Bringier, and D. Meneveau

University of Poitiers

4:15 – 4:30 General discussion of representation and capture

4:30 – 4:45 The challenges of relighting from multi-view observations

D. Siersleben¹, R. Ortiz-Cayon¹, K. Istenic¹, Y. Tomoto¹ and S. Schaub-Meyer²

¹Fusion Inc. ²Technical University of Darmstadt

4:45-5:00 Importance of multi-modal reflection data for predictive rendering

O. Clausen¹, Y. Chen², A. Fuhrmann¹ and R. Marroquim²

¹TH Köln ²TU Delft

5:00 – 5:15 Why we need to pay attention to wave optics in material appearance (Presentation only)

S. Marschner Cornell University

5:15 – 5:30 General discussion of relighting, prediction, and wave optics

Jon Yngve Hardeberg

Holly Rushmeier

Workshop Co-Chairs

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