

# **EG MAM 2016**

## **Eurographics 2016 Workshop on Material Appearance Modeling**

**Dublin, Ireland  
22 June 2016**

**Held in conjunction with  
The 27th Eurographics Symposium on Rendering**

### **Workshop Co-Chairs**

**Reinhard Klein, University of Bonn  
Holly Rushmeier, Yale University**

### **Proceedings Production Editor**

**Dieter Fellner (TU Darmstadt & Fraunhofer IGD, Germany)**

**Sponsored by EUROGRAPHICS Association**

Dieter W. Fellner, Werner Hansmann, Werner Purgathofer, François Sillion  
Series Editors

This work is subject to copyright.

All rights reserved, whether the whole or part of the material is concerned, specifically those of translation, reprinting, re-use of illustrations, broadcasting, reproduction by photocopying machines or similar means, and storage in data banks.

Copyright ©2016 by the Eurographics Association  
Postfach 2926, 38629 Goslar, Germany

Published by the Eurographics Association  
–Postfach 2926, 38629 Goslar, Germany–  
in cooperation with  
Institute of Computer Graphics & Knowledge Visualization at Graz University of Technology  
and  
Fraunhofer IGD (Fraunhofer Institute for Computer Graphics Research), Darmstadt

ISBN 978-3-03868-007-9  
ISSN 2309-5059

The electronic version of the proceedings is available from the Eurographics Digital Library at  
<http://diglib.eg.org>

## Table of Contents

Table of Contents .....	iii
Preface .....	iv
Author Index .....	v
<b>Applications</b>	
Interactive Appearance Prediction for Cloudy Beverages .....	1
<i>Alessandro Dal Corso, Jeppe Revall Frisvad, Thomas Kim Kjeldsen, and Jakob Andreas Bærentzen</i>	
Weathering of Urban Scenes: Challenges and Possible Solutions .....	5
<i>I. Muñoz-Pandiella, C. Bosch, N. Méridou, X. Pueyo, S Méridou, and G. Patow</i>	
<b>Measurement</b>	
Isotropic BRDF Measurements with Quantified Uncertainties .....	9
<i>R. Hegedus, A. Lucat, J. Redon, and R. Pacanowski</i>	
Practical Experiences with Using Autocollimator for Surface Reflectance Measurement .....	15
<i>Vlastimil Havran</i>	
Sparse Sampling for Image-Based SVBRDF Acquisition .....	19
<i>Jiyang Yu, Zexiang Xu, Matteo Mannino, Henrik Wann Jensen, and Ravi Ramamoorthi</i>	
<b>Human and Machine Vision</b>	
Gaze Analysis of BRDF Distortions .....	23
<i>J. Filip, V. Havran, and K. Myszkowski</i>	
Exploring Material Recognition for Estimating Reflectance and Illumination From a Single Image .....	27
<i>Michael Weinmann and Reinhard Klein</i>	

## Preface

The purpose of this workshop series is to discuss and define open issues in the modeling of material appearance. Acquiring, modeling, editing and rendering material appearance are active areas in computer graphics. In this workshop series 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 position papers followed by questions and comments. Position papers are submitted by potential speakers, and reviewed by the workshop co-chairs for relevance and clarity. Seven position papers, included in these proceedings, were accepted for 2016. The position papers are not like conventional conference papers. The main purpose of the papers is to summarize topics, report progress, pose problems and suggest research directions, rather than present finished results.

This year the event was divided into three sessions – Applications, Measurement and Vision. Two or three papers were presented in each session, followed by an extended discussion of the papers and the general area. Interesting issues that arose were how to validate results, the role of perceptual experiments, and the need for more appearance data for applications using machine learning.

Once again, the event was informative and inspiring. We look forward to future editions of workshops in this series.

Holly Rushmeier  
Reinhard Klein  
Workshop Co-Chairs

## Author Index

Barentzen, Jakob Andreas	1	Mérillou, N.	5
Bosch, C.	5	Mérillou, S	5
Corso, Alessandro Dal	1	Muñoz-Pandiella, I.	5
Filip, J.	23	Myszkowski, K.	23
Frisvad, Jeppe Revall	1	Pacanowski, R.	9
Havran, Vlastimil	15, 23	Patow, G.	5
Hegedus, R.	9	Pueyo, X.	5
Jensen, Henrik Wann	19	Ramamoorthi, Ravi	19
Kjeldsen, Thomas Kim	1	Redon, J.	9
Klein, Reinhard	27	Weinmann, Michael	27
Lucat, A.	9	Xu, Zexiang	19
Mannino, Matteo	19	Yu, Jiyang	19