

## Robby T. Tan

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Sciences, Utrecht University,  
Padualaan 14, 3584 CH, The Netherlands

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E-mail: tanrobby (at) gmail.com

- EDUCATION
- ◇ Graduate School of Information Science and Technology, Tokyo, Japan  
The University of Tokyo April 2001 - March 2004  
Ph.D. in Computer Science  
Advisor: Professor Katsushi Ikeuchi  
GPA: 4.0/4.0
  - ◇ Graduate School of Science, The University of Tokyo Tokyo, Japan  
M.S. in Information Science April 1999 - March 2001  
Advisor: Professor Satoru Kawai  
GPA: 4.0/4.0
  - ◇ Faculty of Computer Studies, Bina Nusantara University Jakarta, Indonesia  
B.E. in Computer Engineering 1991 - 1995  
with Honor (cum laude)
- RESEARCH INTERESTS Computer vision, physics-based approaches, machine learning, optimization, computer graphics, computational photography, visual tracking, human pose recognition, 3D reconstruction.
- WORKING EXPERIENCE
- ◇ Utrecht University Utrecht, The Netherlands  
Assistant Professor April 2009 - ...
  - ◇ Imperial College London London, UK  
Research Associate January 2008 - March 2009  
Project: Image Interpretation of Man-Made Scenes
  - ◇ National ICT Australia (NICTA) Canberra, Australia  
Research Fellow (under Prof. Richard Hartley) April 2005 - December 2007  
(also, Adjunct Research Fellow at the Australian National University)
  - ◇ Japan Science and Technology Tokyo, Japan  
Research Fellow (under Prof. Ikeuchi Katsushi) April 2004 - March 2005  
(also, Postdoctoral Fellow at the University of Tokyo)
  - ◇ Japan Science and Technology Tokyo, Japan  
Research Assistant April 2003- March 2004  
Project: Virtual Models of Cultural Heritage
- AWARDS AND SCHOLARSHIPS
- 2006 : Annual IPSJ Best Paper Award  
(IPSJ is Information Processing Society of Japan, the largest and leading computer science society in Japan).
  - 2008 : A nominee of Richard Newton Award of Excellence in Research, NICTA, Australia.
  - 2001 - 2004 : Scholarship from Hashiya Foundation
  - 2000 - 2001 : Scholarship from Japan Rotary Yoneyama

1999 - 2000 : Scholarship from Associate of International Education Japan

1992 - 1994 : Best Students in Computer Engineering Department, Bina Nusantara University

- ACTIVITIES
- ◇ Area Chair ACCV 2010.
  - ◇ Program Committee of ICCV 2007, CVPR 2008, CVPR 2009, ACCV 2009, ICCV 2009, CVPR 2010.
  - ◇ Regular Reviewer for International Journal of Computer Vision (IJCV), Computer Vision and Image Understanding (CVIU), Journal of the Optical Society of America A (JOSA A), IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI), IEEE Transactions on Image Processing (TIP).
  - ◇ Member of IEEE

TEACHING ◇ 2010: Computer Vision, Utrecht University

EXPERIENCE ◇ 2009: Pattern Recognition Seminar, Utrecht University

◇ 2007: Computer Vision Class, Australian National University.

PHD THESIS Robby T. Tan,  
"Illumination Color and Intrinsic Surface Properties: Physics-based Color Analyses from a Single Image", Graduate School of Information Science and Technology, The University of Tokyo, March 2004.

- INVITED TALKS
- ◇ The University of Amsterdam, The Netherlands (April 13, 2010)
  - ◇ The University of East Anglia, UK (February 19, 2010)
  - ◇ Symposium on 3D Texture, Utrecht, The Netherlands (January 15, 2010)
  - ◇ Oxford University, UK (March 26, 2008)
  - ◇ Utrecht University, Colloquium, The Netherlands (2009)
  - ◇ Oxford Brookes University, Otago University, Australian National University, etc.

JOURNAL PUBLICATIONS [JOURNAL PUBLICATIONS]

- ◇ Robby T. Tan, Ko Nishino and Katsushi Ikeuchi  
"Color Constancy Through Inverse-Intensity Chromaticity Space"  
Journal of the Optical Society of America A (JOSA A), 21(3), pp. 321-334, March 2004.
- ◇ Robby T. Tan and Ko Nishino and Katsushi Ikeuchi  
"Separating Reflection Components Based on Chromaticity and Noise Analysis"  
IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI), 26(10), pp. 1373-1379, October 2004.
- ◇ Robby T. Tan and Katsushi Ikeuchi  
"Separating Reflection Components of Textured Surface using a Single Image"  
IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI), 27 (2), pp. 178-193, February, 2005.

- ◇ Robby T. Tan and Katsushi Ikeuchi  
"Illumination Color and Intrinsic Surface Properties"  
IP SJ Transactions on Computer Vision and Image Media, 49 SIG9, pp. 17-40, 2005. (IP SJ Best Paper Award)
- ◇ Kenji Hara, Robby T. Tan, Ko Nishino, Atsushi Nakazawa and Katsushi Ikeuchi  
"Estimating Illumination Position, Color and Surface Reflectance Properties from a Single Image"  
IP SJ Transactions on Computer Vision and Image Media, 44(9): 94-104
- ◇ Zhouyu Fu, A. Robles-Kelly, Terry Caelli, Robby T. Tan.  
"On Automatic Absorption Detection for Imaging Spectroscopy: a Comparative Study"  
IEEE Trans. on Geoscience and Remote Sensing, 45(11), November, 2007.
- ◇ Tetsuro Morimoto, Robby T. Tan, Rei Kawakami, Katsushi Ikeuchi  
"Decomposing Complex Reflection Components at Layered Surfaces"  
Journal of Image Information and Television Engineers, 2009.

CONFERENCE [MAJOR INTERNATIONAL CONFERENCES]

PUBLICA-  
TIONS

*Note: In computer vision community, many researchers consider that there are three major international conferences: ICCV, CVPR and ECCV. These conferences have a considerably high impact factor and a low acceptance ratio, between 20% to 30%, over 1000 submissions.*

- ◇ Tetsuro Morimoto, Robby T. Tan, Rei Kawakami, Ikeuchi Katsushi  
"Estimating Optical Properties of Layered Surface Using the Spider Model"  
in IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2010.
- ◇ Robby T. Tan  
"Visibility in Bad Weather From A Single Image"  
in IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2008.
- ◇ Rei Kawakami, Robby T. Tan and Katsushi Ikeuchi  
"Consistent Surface Color for Texturing Large Objects in Outdoor Scenes"  
in IEEE International Conference in Computer Vision (ICCV) 2005.
- ◇ Robby T. Tan and Katsushi Ikeuchi  
"Reflection Components Decomposition of Textured Surfaces using Linear Basis Functions"  
in IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2005.
- ◇ Robby T. Tan and Katsushi Ikeuchi  
"Separating Reflection Components of Textured Surface using a Single Image"  
in IEEE International Conference on Computer Vision (ICCV), pp.870-877, October 2003.
- ◇ Daisuke Miyazaki, Robby T. Tan, Kenji Hara and Katsushi Ikeuchi  
"Polarization based Inverse Rendering from a Single View"  
in IEEE International Conference on Computer Vision (ICCV), October 2003.
- ◇ Robby T. Tan, Ko Nishino and Katsushi Ikeuchi  
"Illumination Chromaticity Estimation using Inverse-Intensity Chromaticity Space"  
in IEEE Conference on Computer Vision and Pattern Recognition (CVPR), pp.673-680, June 2003.

**[OTHER INTERNATIONAL WORKSHOPS/CONFERENCES]**

- ◇ D. Heesch, Robby T. Tan, M. Petrou  
"Context First"  
in Proceeding of SSPR/SPR 2008.
- ◇ Robby T. Tan, Niklas Pettersson, Lars Petersson  
"Visibility Enhancement for Roads with Foggy or Hazy Scenes"  
in Proceeding of IEEE Intelligent Vehicles Symposium, IV 2007.
- ◇ Zhouyu Fu, Robby T. Tan and Terry Caelli  
"Spectral Highlight Removal Using Orthogonal Subspace Projection"  
in Proceeding of International Conference on Pattern Recognition, ICPR, 2006.
- ◇ Zhouyu Fu, A. Robles-Kelly, Robby T. Tan and Terry Caelli  
"Invariant Object Material Identification via Discrimination Learning on Absorption Features"  
in Third Joint IEEE International Workshop on Object Tracking and Classification In and Beyond the Visible Spectrum, in conjunction with CVPR 2006.
- ◇ Rei Kawakami, Robby T. Tan and Katsushi Ikeuchi  
"A Robust Framework to Estimate Surface Color from Changing Illumination"  
in Proceeding of Asian Conference on Computer Vision (ACCV), pp.1026-1031, January, 2004.
- ◇ Akifumi Ikari, Robby T. Tan and Katsushi Ikeuchi  
"Separating Illumination and Surface Spectral from Multiple Color Signals"  
in Proceeding of Asian Conference on Computer Vision (ACCV), pp.264-269, January, 2004.
- ◇ Robby T. Tan and Katsushi Ikeuchi  
"Estimating Chromaticity of Multicolored Illuminations"  
in IEEE Workshop on Color and Photometric Method in Computer Vision (CPMCV, in conjunction with ICCV), October 2003.
- ◇ Robby T. Tan, Ko Nishino and Katsushi Ikeuchi  
"Reflection Components Separation based-on Chromaticity and Noise Analysis"  
in IEEE Workshop on Color and Photometric Method in Computer Vision (CPMCV, in conjunction with ICCV), October 2003.
- ◇ Robby T. Tan, Ko Nishino and Katsushi Ikeuchi  
"Separating Diffuse and Specular Reflection Components based on Surface Color Ratio and Chromaticity"  
in Proceeding of IAPR International Workshop on Machine Vision Application (MVA), pp. 14-19, December 2002.
- ◇ Ko Nishino, Kenji Hara, Robby T. Tan, Daisuke Miyazaki and Katsushi Ikeuchi  
"Photometric Aspects on the Preservation of Cultural Assets"  
in Proceeding of Virtual Sytem and Multimedia (VSMM) pp. 926-933, September 2002.

**[DOMESTIC PUBLICATIONS]**

- ◇ H. Zhao, Rei Kawakami, Robby T. Tan, Katsushi Ikeuchi  
"Estimating Basis Functions for Spectral Sensitivity of Digital Cameras"  
in proceeding of Meeting on Image Image Recognition and Understanding (MIRU 2009), Japan.

- ◇ Tetsuro Morimoto, Robby T. Tan, Rei Kawakami, Ikeuchi Katsushi,  
"Decomposing Complex Reflection Components at Layered Surfaces"  
in proceeding of Meeting on Image Image Recognition and Understanding (MIRU 2009),  
Japan.
- ◇ Rei Kawakami, Robby T. Tan, Katsushi Ikeuchi  
"Robust Estimation of Surface Color from Single Images Using Illumination Variance"  
in proceeding of Meeting on Image Image Recognition and Understanding (MIRU 2005),  
pp. II:169-II:174, July, 2004
- ◇ Robby T. Tan and Katsushi Ikeuchi  
"Intrinsic Properties of an Image with Highlights"  
in proceeding of Meeting on Image Image Recognition and Understanding (MIRU 2004),  
pp. II:465-II:470, July, 2004.
- ◇ Rei Kawakami, Robby T. Tan, Katsushi Ikeuchi  
"Color Constancy from Illumination Changes"  
in proceeding of Meeting on Image Image Recognition and Understanding (MIRU 2004),  
pp. II:169-II:174, July, 2004
- ◇ A. Ikari, Robby T. Tan, Katsushi Ikeuchi  
"Transformation Functions for Obtaining Spectral Data using Interference Filter"  
in proceeding of Meeting on Image Image Recognition and Understanding (MIRU 2004),  
pp. II:471-II:476, July, 2004
- ◇ A. Ikari, Robby T. Tan, Katsushi Ikeuchi  
"Separating Illumination and Surface Spectral from Spectral Images by Using Interference  
Filter"  
in proceeding of Meeting on Image Image Recognition and Understanding (MIRU 2004),  
pp. II:477-II:482, July, 2004
- ◇ Kenji Hara, Robby T. Tan, Ko Nishino, Atsushi Nakazawa and Katsushi Ikeuchi  
"Light Source Position and Color Estimation from a Single Color Image"  
in Proceeding of Meeting on Image Recognition and Understanding (MIRU) 2002, pp. 477-  
482.

BOOK  
CHAPTERS

[ARTICLES IN BOOK CHAPTERS]

- ◇ Akifumi Ikari, Rei Kawakami, Robby T. Tan, Katsushi Ikeuchi,  
"Separating illumination and surface spectral from multicolor signals",  
in Digitally Archiving Cultural Objects, ISBN 9783540754114, Chapter 15, Springer, 2008.
- ◇ Rei Kawakami, Robby T. Tan, Katsushi Ikeuchi,  
"Consistent surface color for texturing large objects in outdoor scenes",  
in Digitally Archiving Cultural Objects, ISBN 9783540754114, Chapter 14, Springer, 2008.
- ◇ Robby T. Tan, Ko Nishino, Katsushi Ikeuchi,  
"Color constancy through inverse-intensity chromaticity space",  
in Digitally Archiving Cultural Objects, ISBN 9783540754114, Chapter 16, Springer, 2008.
- ◇ Robby T. Tan, Katsushi Ikeuchi,  
"Separating reflection components of textured surfaces using a single image",  
in Digitally Archiving Cultural Objects, ISBN 9783540754114, Chapter 17, Springer, 2008.