

CV

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1 Résumé

1.1 Situation

Jean-Baptiste THOMAS, PhD

Maître de Conférences / Associate Professor at Université de Bourgogne,

Section CNU 61 (National University Council label),

Faculty of science and technology, dpt IEM

Laboratory of electronics, computer science and image (Le2i), FRE CNRS 2005

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1.2 Synopsis

I am currently **Postdoctoral research fellow** at [NTNU-Gjøvik](#), working on the [MUVApp](#) project. This project is dedicated to understand and measure visual appearance of objects.

I am also **Maître de conférence** (Associate Prof.) at [Université de Bourgogne](#) (Burgundy, France) although I am in a **sabbatic leave** until 2019 (Mise en détachement 2016-19). In this context, my teaching is associated to the department [IEM](#) (computer science, electronics and mechanics) and my research is associated to the Le2i (laboratory of electronics, computer science and image). I was a 50% **invited researcher** at the [IVRL](#), EPFL (Lausanne, Switzerland) on year 2015-16 in the context of a **délégation CNRS**. My expertise lies in **color imaging from acquisition to reproduction**, through technological aspects, physical measurements and human visual system understanding. My teachings include but are not limited to signal and image processing, sensors, color science, colorimetry, color imaging and multispectral imaging. I managed and launched a Master program in English in [Advanced Electronic Systems Engineering](#)¹ taught in English in 2015-16. I review for different scientific journals (Journal of Imaging Science and Technology, Journal of the Society for Information Display, Chinese Optical Letters, Scientific Research and Essays, IEEE Transactions on Image processing, IEEE Transactions on Circuits Systems and Video Technology, Journal of Modern Optics, Sensors, Optical engineering). I participate to conference organizations and program committees, such as CoMI (Color and Multispectral Imaging workshop) and CVCS (Colour and Visual Computing Symposium). I was **principal researcher and coordinator** for the project PSPC [Open Food System](#)² for my lab and was **technical coordinator** for the EU projects [H2020-EXIST](#)³ and [CATRENE-CISTERN](#)⁴. I was co-head of the team MOTI (Methods and tools for image processing) of my lab in 2015 and I was elected to sit at the Lab council between 2012 and 2016. I supervised and am supervising several PhD and Master students.

1.3 Education

- PhD, Color imaging science (2009), from Université de Bourgogne, France, in collaboration with the Gjøvik University College, Norway.
- MSc, Optics, Image and Vision, with major in Image, Vision and Signal processing (2006), from Université Jean Monnet, Saint-Etienne, France.
- BSc, Applied Physics (2004), from Université Jean Monnet.

¹http://www-iem.u-bourgogne.fr/MASTER/MSCAESE/homepage_128.htm

²<http://www.openfoodsystem.fr>

³http://cordis.europa.eu/project/rcn/198017_en.html

⁴<http://www.cistern.nl/index.php/consortium>

1.4 Scientific History

- Post doctoral fellow, since September 2016 at NTNU-Gjøvik.
 - Interests: Measuring and understanding the visual appearance of complex 3D translucent objects.
 - Projects: MUVApp.
- Maître de conférences, since September 2010 at Université de Bourgogne.
 - Interests: Multispectral filter array for color and multispectral acquisition (filter design, optimization, demosaicing, color constancy). I recently get involved more into illumination estimation from uncalibrated multispectral images since I do believe this is a critical leverage to take these cameras out of the labs.
 - Major projects: Open Food System (PSPC), EXIST(H2020), CISTERN (CATRENE).
- Post doctoral fellow, February 2010 to July 2010.
 - At Centre de recherche et de restauration des Musées de France, Paris, France.
 - Thema: Obsolescence and contemporary art: Digitization of artist films.
- Post doctoral fellow,, October 2009 to December 2009.
 - At Gjøvik University College, Gjøvik, Norway, The Norwegian Color Research Laboratory (Colorlab).
 - Thema: Spatial characterization of video-projection systems and colorimetric optimization of 3D projection systems.
- Research fellow, PhD candidate, October 2006 to September 2009.
 - At Université de Bourgogne, Dijon, France, and at Gjøvik University College, Gjøvik, Norway.
 - Laboratories: LE2I and Colorlab.
 - Supervisors: Professors Pierre Gouton and Jon Y. Hardeberg, and Dr. Irène Foucherot.
 - Reviewers: Professors Sabine Süsstrunk and Lindsay MacDonald.
 - Jury president: Professor Françoise Viénot.
 - Thesis: Colorimetric characterization of displays and multi-display systems.
- Master thesis, Mars 2006 to September 2006.
 - At Université Jean Monnet, Saint-Etienne, France.
 - Laboratory: Laboratory of computer graphics and vision engineering (LIGIV).
 - Supervisor: Professor Alain Trémeau.
 - Thesis: Color image watermarking for the insertion of a representative color chart into the image.
- Internship April to July 2005.
 - At Université Jean Monnet, Saint-Etienne, France.
 - Laboratory: LIGIV.
 - Supervisor: Dr. Philippe Colantoni.
 - Technical report: Colorimetric characterization of displays, estimation of a model quality.

1.5 References

- Academic references.
 - Pierre Gouton (Pr. Université de Bourgogne, France)
 - Alamin Mansouri (Pr. Université de Bourgogne, France)
 - Jon Y. Hardeberg (Pr. NTNU-Gjøvik, Norway)
 - Marius Pedersen (Ass. Pr. NTNU-Gjøvik, Norway)
 - Sabine Susstrunk (Pr. EPFL, Switzerland)
 - Alain Trémeau (Pr. Université Jean Monnet, France)
 - Philippe Colantoni (Ass. Pr. Université Jean Monnet, France)
- Industrial references may be available under conditions.

1.6 Supervisions

1.6.1 Post Doc

I worked with 2 Post Doctoral fellows that we recruited on projects OFS and EXIST, which are summarized in Table 1.

Table 1. Post doctoral fellows management

Name	Time	Title	Fundings	Management
Pierre-Jean LAPRAY	01/12/2013 - 31/07/2014	Spectral Filter Array: Prototyping of a camera	OFS	J.B. Thomas Pr. P. Gouton
Keivan ANSARI	01/12/2015 - 30/09/2016	Multispectral face recognition: Design and demonstrator	EXIST	J.B. Thomas Pr. P. Gouton

1.6.2 PhD students

I co-supervise(d) 4 PhD students, which are summarized in Table 2.

Table 2. PhD student supervisions

Name	Time	Title	Fundings	Context	Supervision
Xingbo WANG	01/10/2011 - 10/10/2016	Filter array based spectral imaging: demosaicking and design considerations	50% Burgundy regional council 50% NTNU-Gjøvik	joint PhD UB + NTNU-Gjøvik	Pr. J.Y. Hardeberg Pr. P. Gouton J.B. Thomas
Ping ZHAO	01/10/2012 - 23/11/2015	Camera Based Display Image Quality Assessment	100% HIG	hypercept project	Pr. J.Y. Hardeberg M. Pedersen J.B. Thomas
Jessica EL KHOURY	01/10/2013 - 05/12/2016	Model and quality assessment of single image dehazing	100% UB	OFS project	Pr. A. Mansouri J.B. Thomas
Haris AHMAD	01/10/2015 - pl.2018	Illuminant estimation from uncalibrated multispectral images	50% Burgundy regional council 50% NTNU-Gjøvik	joint PhD UB + NTNU-Gjøvik	Pr. J.Y. Hardeberg Pr. O. Lalignat J.B. Thomas

1.6.3 Master students

I supervised and co-supervised 7 Master thesis, which are summarized in Table 3.

Table 3. Master thesis student supervisions

Name	Time	Title	Context	Supervision
Espen MIKALSEN	01/01/2007 - 01/07/2007	Verification and extension of a camera based calibration method for projection displays	HIG	J.B. Thomas Pr. J.Y. Hardeberg
Julie-Gaelle ALBRECHT	15/03/2013 - 15/07/2013	Colorimetric characterization and classification for generating a color palette of Burgundy wines	collaboration BIVB	J.B. Thomas
Jessica EL KHOURY	15/03/2013 - 15/07/2013	Spectral measurement in cooking environment	OFS project	J.B. Thomas
Daniel SUAZO	01/01/2013 - 01/07/2013	Edge blending in multiprojection systems	collaboration HIG	M. Pedersen J.B. Thomas
Hassan A. MAHAMAT	15/05/2014 - 14/07/2014	Automatic photometric compensation of projection surfaces		J.B. Thomas
Antoine GHORRA	30/03/2015 - 30/07/2015	Illuminant estimation from uncalibrated multispectral images		J.B. Thomas
Samir RAOUI	30/03/2015 - 30/07/2015	Integration of a colorimeter into a prototype of commercial oven for real-time analysis	OFS Project	J.B. Thomas S. Jacquir

1.6.4 Other

- I am occasionally Master thesis external examiner at HIG/NTNU-Gjøvik and at EPFL.
- I supervise every year Master and Bachelor students on smaller projects.
- I was invited to a jury for a PhD thesis defense (Hasan SHEIKH FARIDUL, Université Jean Monnet, the 06/01/2014)

1.7 Projects and fundings

1.7.1 EXIST and CISTERN

We successfully work on two EU projects for which I am technical coordinator for the LE2I: [EXIST](#)(H2020) and [CISTERN](#) (CATRENE). These projects aim at defining new generations of [CMOS sensors](#). These projects started in 2015.

EXIST 36 months project started on the 01/05/2015.

CISTERN 36 months project started on the 01/04/2015.

1.7.2 OFS

[Open Food System](#) aims at defining the kitchen of tomorrow by the mean of connected and instrumented cooking devices. I managed this project, funded by the ministry of industries, for the LE2I. This project started in January 2013 and ended in July 2016.

1.7.3 AURORA 2015

Together with Marius Pedersen (NTNU-Gjøvik), we obtained a 1 year traveling grant within the AURORA, PHC call. We worked on the orientation selectivity in chromatic contrast sensitivity of the human visual system and its consequences on display quality.

1.7.4 BQR PRES 2014

I obtained a local funding for investigating and developing the use of multi spectral cameras in automotive applications. This funding permitted to duplicate prototypes of Spectral Filter Array cameras.

1.7.5 BQR 2012

I obtained a local funding for developing the thema of Technological obsolescence in contemporary art: The case of experimental cinema of FLICKER. This was an echo to my post doc at the C2RMF.

1.7.6 COSCH

I am a member of the network COST project [COSCH](#)⁵ dedicated to cultural heritage.

1.7.7 Hypercept

I was invited to participate to the [hypercept](#)⁶ project funded by the Norwegian research council. This project provided me the possibility to give continuity to my historical collaboration with HIG/NTNU-Gjøvik.

⁵http://www.cost.eu/domains_actions/mpns/Actions/TD1201

⁶http://colourlab.no/research_and_development/research_projects/hypercept

2 Research summary

My current research focuses on color and multispectral imaging. I tend to investigate more and more the concept of material appearance in a complex scene from physical estimates or measurements of their surface properties.

2.1 Visual appearance

Visual appearance is a very broad concept. Although most people can perceive and describe the appearance of objects, it is not yet understood how, and what measure we can give to this concept. This is a trans-disciplinary research field, where I try to use imaging techniques to infer object appearance properties.

2.2 Color reproduction - Displays

Before 2010, I focused on colorimetric characterization of displays. Starting from physical modeling, then shifting to spatial aspects, edge-blending and 3D, I developed an expertise on physical colors and perceptual colors. I did communicate and still do on this topic^{4,8-11,31,33,35-40,42,46,50}.

2.3 Image acquisition - Camera

Since 2010, I investigated on color and multispectral acquisition and associated signal processing. On color acquisition, I did transfer my expertise from displays to scanners³² and I wrote a couple of book chapters on color cameras^{44,45}. On multispectral acquisition, I developed the MSFA (MultiSpectral Filter Arrays) technology⁵¹⁻⁵⁴. We realized a prototype of a joint visible and NIR camera^{2,6,23}. We discussed what may be optimal sensor spectral sensitivities^{1,7,12,26,29}. We investigate demosaicing and related aspects through the PhD of Xingbo Wang^{17,21,27,28} and through my collaboration with EPFL during my delegation CNRS during which we combine demosaicing and unmixing of spectral components¹³. We consider the dehazing aspect of image through the PhD of Jessica EL Khoury^{14,18,22}. We investigate on illuminant estimation from uncalibrated multispectral images through the PhD of Haris Ahmad Khan¹⁶. A demonstration of multispectral video applied to background subtraction has been shown¹⁹. I do believe that the simplicity of the MSFA concept coupled with illuminant understanding is the key for getting multispectral cameras out of the labs.

2.4 Visual aspects and quality

In parallel, I am developing a research on vision and on quality linked with the above two aspects. I think these are the most fundamental points of my research and it is a long shot strategy. I considered the gamut of an image and the sampling of color spaces^{3,25,41,43}. Through the notion of structures in an image and the notion of graphs, I proposed the visualization of image data in a new way³⁴. Recently, I contributed to evaluate the perceived quality of a displayed image through the PhD of Ping Zhao^{5,15,20,24,30}. We considered the use of a camera to replace the observers in the conduction of quality evaluation experiment.

2.5 Publications

Publications are shown in next Section. I refer to my [Google Scholar](#) profile for indexes and citations⁷. In the next section, references 1 to 11 are published in International Journals with peer review, references 12 to 43 are published in conferences with publication acts, references 44 to 46 are book chapters, reference 47 is my PhD thesis. The lasts refer to invited talks I gave in several institutions and to technical reports. I also list the submitted paper for information: 3 Journal articles and 5 conference papers are under review. You refer to my [personal webpage](#) for accessing my publications⁸.

⁷<https://scholar.google.fr/citations?user=MkzII3cAAAAJ&hl=fr>

⁸<http://jbthomas.org/publications-2.html>

3 Scientific communications

References

3.1 Journals

1. P.-J. Lapray, J.-B. Thomas, P. Gouton, and Y. Ruichek. Energy balance in Spectral Filter Array camera design. *Journal of the European Optical Society-Rapid Publications*, 13(1), jan 2017.
2. J.-B. Thomas, P.-J. Lapray, P. Gouton, and C. Clerc. Spectral Characterization of a Prototype SFA Camera for Joint Visible and NIR Acquisition. *Sensors*, 16(7):993, 2016.
3. P. Colantoni, J.-B. Thomas, and A. Trémeau. Sampling CIELAB color space with perceptual metrics. *International Journal of Imaging and Robotics*, 16(3), 2016.
4. M. Pedersen, D. Suazo, and J.-B. Thomas. Seam-Based Edge Blending for Multi-Projection Systems. *International Journal of Signal Processing, Image Processing and Pattern Recognition*, 9(4):11–26, 2016.
5. P. Zhao, M. Pedersen, J. Y. Hardeberg, and J.-B. Thomas. Measuring the Relative Image Contrast of Projection Displays. *Journal of Imaging Science and Technology*, 59(3):30404–1–30404–13, 2015.
6. P.-J. Lapray, X. Wang, J.-B. Thomas, and P. Gouton. Multispectral Filter Arrays: Recent Advances and Practical Implementation. *Sensors*, 14(11):21626, 2014.
7. X. Wang, J.-B. Thomas, J. Y. Hardeberg, and P. Gouton. Multispectral imaging: narrow or wide band filters? *Journal of the International Colour Association*, 12:44–51, 2014.
8. P. Colantoni, J.-B. Thomas, and J. Y. Hardeberg. High-end colorimetric display characterization using an adaptive training set. *Journal of the Society for Information Display*, 19(8):520–530, 2011.
9. J.-B. Thomas, A. Bakke, and J. Gerhardt. Spatial Nonuniformity of Color Features in Projection Displays: A Quantitative Analysis. *Journal of Imaging Science and Technology*, 54(3):30403–1–30403–13, 2010.
10. J.-B. Thomas, J. Y. Hardeberg, I. Foucherot, and P. Gouton. The PLVC display color characterization model revisited. *Color Research & Application*, 33(6):449–460, 2008.
11. J.-B. Thomas, P. Colantoni, J. Y. Hardeberg, I. Foucherot, and P. Gouton. A geometrical approach for inverting display color-characterization models. *Journal of the Society for Information Display*, 16(10):1021–1031, 2008.

3.2 Conferences

12. K. Ansari, J.-B. Thomas, and P. Gouton. Spectral band selection using a genetic algorithm based wiener filter estimation method for reconstruction of munsell spectral data. In *Color Imaging: Displaying, Processing, Hardcopy, and Applications*. IS&T Electronic Imaging 2017 Symposium, 2017.
13. Z. Sadeghipoor, J.-B. Thomas, and S. Susstrunk. Demultiplexing visible and Near-Infrared Information in single-sensor multispectral imaging. *Color and Imaging Conference*, 2016(2016), 2016.
14. J. El Khoury, J.-B. Thomas, and A. Mansouri. *A Color Image Database for Haze Model and Dehazing Methods Evaluation*, pages 109–117. Springer International Publishing, Cham, 2016.
15. P. Zhao, M. Pedersen, J. Y. Hardeberg, and J.-B. Thomas. Measuring the Relative Image Contrast of Projection Displays. *Color and Imaging Conference*, 2015(1):79–91, 2015.
16. J.-B. Thomas. Illuminant estimation from uncalibrated multispectral images. In *Colour and Visual Computing Symposium (CVCS)*, 2015, pages 1–6, Aug 2015.
17. X. Wang, P. J. Green, J.-B. Thomas, J. Y. Hardeberg, and P. Gouton. *Computational Color Imaging: 5th International Workshop, CCIW 2015, Saint Etienne, France, March 24-26, 2015, Proceedings*, chapter Evaluation of the Colorimetric Performance of Single-Sensor Image Acquisition Systems Employing Colour and Multispectral Filter Array, pages 181–191. Springer International Publishing, Cham, 2015.
18. J. El Khoury, J.-B. Thomas, and A. Mansouri. Haze and convergence models: Experimental comparison. In *AIC 2015*, Tokyo, Japan, May 2015.
19. Y. Benezeth, D. Sidibé, and J.-B. Thomas. Background subtraction with multispectral video sequences. In *IEEE International Conference on Robotics and Automation workshop on Non-classical Cameras, Camera Networks and Omnidirectional Vision (OMNIVIS)*, pages 6–p, 2014.

20. P. Zhao, M. Pedersen, J. Y. Hardeberg, and J. B. Thomas. Image registration for quality assessment of projection displays. In *2014 IEEE International Conference on Image Processing (ICIP)*, pages 3488–3492, Oct 2014.
21. X. Wang, M. Pedersen, and J.-B. Thomas. The influence of chromatic aberration on demosaicking. In *Visual Information Processing (EUVIP), 2014 5th European Workshop on*, pages 1–6, Dec 2014.
22. J. El Khoury, J.-B. Thomas, and M. Alamin. Does Dehazing Model Preserve Color Information? In *Signal-Image Technology and Internet-Based Systems (SITIS), 2014 Tenth International Conference on*, pages 606–613, Nov 2014.
23. P.-J. Lapray, J.-B. Thomas, and P. Gouton. A Multispectral Acquisition System using MSFAs. *Color and Imaging Conference*, 2014(2014):97–102, 2014.
24. P. Zhao, M. Pedersen, J.-B. Thomas, and J. Y. Hardeberg. Perceptual Spatial Uniformity Assessment of Projection Displays with a Calibrated Camera. *Color and Imaging Conference*, 2014(2014):159–164, 2014.
25. J.-B. Thomas, P. Colantoni, and A. Trémeau. *Computational Color Imaging: 4th International Workshop, CCIW 2013, Chiba, Japan, March 3-5, 2013. Proceedings*, chapter On the Uniform Sampling of CIELAB Color Space and the Number of Discernible Colors, pages 53–67. Springer Berlin Heidelberg, Berlin, Heidelberg, 2013.
26. X. Wang, J.-B. Thomas, J. Y. Hardeberg, and P. Gouton. A Study on the Impact of Spectral Characteristics of Filters on Multispectral Image Acquisition. In S. W. Lindsay MacDonald, Stephen Westland, editor, *Proceedings of AIC Colour 2013*, volume 4, pages 1765–1768, Gateshead, Royaume-Uni, July 2013.
27. X. Wang, J.-B. Thomas, J. Y. Hardeberg, and P. Gouton. Median filtering in multispectral filter array demosaicking. volume 8660, pages 86600E–86600E–10, 2013.
28. X. Wang, J.-B. Thomas, J. Hardeberg, and P. Gouton. Discrete wavelet transform based multispectral filter array demosaicking. In *Colour and Visual Computing Symposium (CVCS), 2013*, pages 1–6, Sept 2013.
29. H. Peguillet, J.-B. Thomas, P. Gouton, and Y. Ruichek. Energy balance in single exposure multispectral sensors. In *Colour and Visual Computing Symposium (CVCS), 2013*, pages 1–6, Sept 2013.
30. P. Zhao, M. Pedersen, J. Y. Hardeberg, and J.-B. Thomas. Camera-based measurement of relative image contrast in projection displays. In *Visual Information Processing (EUVIP), 2013 4th European Workshop on*, pages 112–117, June 2013.
31. J.-B. Thomas and J. Gerhardt. Webcam based display calibration. *Color and Imaging Conference*, 2012(1):82–87, 2012.
32. J.-B. Thomas and C. Boust. Colorimetric Characterization of a Positive Film Scanner Using an Extremely Reduced Training Data Set. *Color and Imaging Conference*, 2011(1):152–155, 2011.
33. J. Gerhardt and J.-B. Thomas. Toward an automatic color calibration for 3D displays. *Color and Imaging Conference*, 2010(1):5–10, 2010.
34. P. Colantoni, J.-B. Thomas, and R. Pillay. Graph-based 3D Visualization of Color Content in Paintings. In A. Artusi, M. Joly, G. Lucet, D. Pitzalis, and A. Ribes, editors, *VAST: International Symposium on Virtual Reality, Archaeology and Intelligent Cultural Heritage - Short and Project Papers*. The Eurographics Association, 2010.
35. J.-B. Thomas. Controlling color in display: A discussion on quality. *CREATE*, 2010.
36. J.-B. Thomas and A. M. Bakke. *Computational Color Imaging: Second International Workshop, CCIW 2009, Saint-Etienne, France, March 26-27, 2009. Revised Selected Papers*. pages 160–169, Berlin, Heidelberg, 2009. Springer Berlin Heidelberg.
37. P. Colantoni and J.-B. Thomas. Image Analysis: 16th Scandinavian Conference, SCIA 2009, Oslo, Norway, June 15-18, 2009. *Proceedings*. pages 128–137, Berlin, Heidelberg, 2009. Springer Berlin Heidelberg.
38. A. M. Bakke, J.-B. Thomas, and J. Gerhardt. Common assumptions in color characterization of projectors. Number 3, pages 50–55, 2009.
39. J.-B. Thomas, P. Colantoni, J. Y. Hardeberg, I. Foucherot, and P. Gouton. An inverse display color characterization model based on an optimized geometrical structure. volume 6807, pages 68070A–68070A–12, 2008.
40. E. B. Mikalsen, J. Y. Hardeberg, and J.-B. Thomas. Verification and extension of a camera-based end-user calibration method for projection displays. *Conference on Colour in Graphics, Imaging, and Vision*, 2008(1):575–579, 2008.
41. J.-B. Thomas and A. Tremeau. A Gamut Preserving Color Image Quantization. In *Image Analysis and Processing Workshops, 2007. ICIAPW 2007. 14th International Conference on*, pages 221–226, Sept 2007.
42. J.-B. Thomas, J. Hardeberg, I. Foucherot, and P. Gouton. Additivity Based LC Display Color Characterization. Number 2, pages 50–55, 2007.

43. J.-B. Thomas, G. Chareyron, and A. Trémeau. Image watermarking based on a color quantization process. volume 6506, pages 650603–650603–12, 2007.

3.3 Books

44. V. Nozick and J.-B. Thomas. *Camera Calibration: Geometric and Colorimetric Correction*, pages 91–112. John Wiley & Sons, Inc., 2013.
45. V. Nozick and J.-B. Thomas. *Calibration et Rectification*, chapter 5, pages 105–124. Hermès, October 2013.
46. J.-B. Thomas, J. Hardeberg, and A. Trémeau. Cross-Media Color Reproduction and Display Characterization. In C. Fernandez-Maloigne, editor, *Advanced Color Image Processing and Analysis*, pages 81–118. Springer New York, 2013.
47. J.-B. Thomas. Colorimetric characterization of displays and multi-display systems. PhD, 2009.

3.4 Technical reports

48. J.-B. Thomas, J. Hardeberg, and A. Trémeau. Draft Report on Cross-Media Color Reproduction and Display Characterization, 2012.
49. J.-B. Thomas. Calibration de caméras couleurs. Rapport technique et références, 2012.

3.5 Noticeable workshop presentations

50. J.-B. Thomas. Colorimetric characterization of displays and multi-display systems. Invited talk VISOR seminar, November 2009.
51. J.-B. Thomas. Sensors based on MultiSpectral Filter Arrays. Invited talk pôle ORA, March 2014.
52. J.-B. Thomas. Filter array-based spectral imaging: Design choices and practical realization. Invited talk, Workshop of the hypercept project #5 Multispectral image capture, processing & quality, September 2014.
53. J.-B. Thomas. MultiSpectral Filter Arrays: Design and demosaicing. invited talks, LPNC and LISTIC, November - December 2014.
54. J.-B. Thomas. MultiSpectral Filter Arrays: Tutorial and prototype definition. Invited talk, Visual computing workshop, EPFL, March 2016.

3.6 Submitted on the 31/01/2017

55. H. Ahmad, J.-B. Thomas, J. Hardeberg and O. Laligant. Illuminant estimation in multispectral imaging: Towards spectral constancy. Journal.
56. J. ElKhoury, J.-B. Thomas, and A. Mansouri. A database with reference for image dehazing evaluation. Journal.
57. J. ElKhoury, S. LeMoan, J.-B. Thomas, and A. Mansouri. Image dehazing quality assessment. Journal.
58. J.-B. Thomas, J. Hardeberg, and G. Simone. Image contrast measure as a gloss material descriptor. Conference.
59. H. Ahmad, J.-B. Thomas, and J. Hardeberg. Analytical survey of highlight detection in color and spectral images. Conference.
60. P.-J. Lapray, J.-B. Thomas, and P. Gouton. A database of spectral filter array images that combine visible and NIR. Conference.
61. H. Ahmad, J.-B. Thomas, and J. Hardeberg. Spectral constancy based on spectral adaptation transform. Conference.
62. J.-B. Thomas, P.-J. Lapray, and P. Gouton. HDR imaging pipeline for spectral filter array cameras. Conference.