

Yvain QUÉAU

Post-doctoral researcher in TU Munich

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🌐 [yqueau](https://yqueau.github.io)

29 ans



Curriculum vitæ

Research interests

Expertise	Mathematical and numerical tools for signal, image and vision
Tools	Variational methods, Bayesian inference, PDEs
Numerical optimisation	Convex or non-convex, continuous or discrete, in finite or infinite dimension
Inverse problems	Reconstruction, inpainting, super-resolution
3D-vision	Shape-from-shading, photometric stereo, multi-view stereo, RGBD-sensors

Current situation

Since Sep. 2016	Technical University of Munich (Germany) <i>Post-doc</i> Research and teaching on variational methods for inverse problems in computer vision Supervisor: Daniel CREMERS, chair of computer vision Fundings: ERC Consolidator Grant “3D-Reloaded” (number 649323)
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Past academic experiences

- Mar. - Aug. 2016 **INP-ENSEEIH**T, **IRIT** (Toulouse, France)
Research and teaching assistant (“ATER”)
Teaching in the department of Computer Science and Applied Mathematics
Research on mathematical imaging, in the group of Prof. Vincent CHARVILLAT
- Dec. 2015 - Feb. 2016 **Université Paul Sabatier**, **IRIT** (Toulouse, France)
Researcher
Research on mathematical imaging, in the group of Prof. Vincent CHARVILLAT
Funded by a grant from LabEx CIMI
- Dec. 2012 - Nov. 2015 **INP-ENSEEIH**T, **IRIT** (Toulouse, France)
Research and teaching assistant (“moniteur”)
Teaching in the department of Computer Science and Applied Mathematics
Ph.D thesis on 3D-reconstruction by photometric stereo
Funded by a grant from the French ministry of research (“MESR”)
Supervisor: Assoc. Prof. Jean-Denis DUROU
- Apr. - Sep. 2012 **IRIT** (Toulouse, France), **DIKU** (Copenhagen, Denmark)
Research intern
Master thesis on variational methods for 3D-reconstruction
Supervisors: Assoc. Profs. Jean-Denis DUROU and François LAUZE
- June - Sep. 2011 **IRIT** (Toulouse, France)
Research intern
Machine learning for 3D-vision
Supervisors: Prof. Vincent CHARVILLAT and Assoc. Prof. Jean-Denis DUROU

Education

- Feb. 2016 **“Maître de conférences” qualification, CNU sections:**
- 26 (applied mathematics, qualification number 16226292024)
- 27 (computer science, qualification number 16227292024)
- 61 (signal processing, qualification number 16261292024)
- Dec. 2012 - Nov. 2015 **Ph.D in image, information and hypermedia**
Title: “Reconstruction tridimensionnelle par stéréophotométrie”
Defended on: Nov. 26, 2015 in Toulouse (France)
Delivered by: Institut national polytechnique de Toulouse (INPT)
Laboratory: Institut de recherche en informatique de Toulouse (IRIT)
Jury:
Adrien BARTOLI *Referee* Prof., ISIT, Clermont-Ferrand (France)
Daniel CREMERS *Referee* Prof., TUM, Munich (Germany)
Maurizio FALCONE *Referee* Prof., La Sapienza, Roma (Italy)
Vincent CHARVILLAT *President* Prof., INP, Toulouse (France)
Jean-Denis DUROU *Supervisor* MCF HDR, UPS, Toulouse (France)
Olivier AUBRETON *Member* MCF HDR, LE2i, Le Creusot (France)
Jean-François AUJOL *Member* Prof., IMB, Bordeaux (France)
Pierre GURDJOS *Member* IR, CNRS (France)
Xavier DESCOMBES *Guest* DR, INRIA, Sophia-Antipolis (France)
François LAUZE *Guest* Assoc. Prof., DIKU, Copenhagen (Denmark)
- Sep. 2009 - Sep. 2012 **Master of Sciences + Engineering degree in computer science and applied mathematics**
Delivered by: École nationale supérieure d’électrotechnique, d’électronique, d’informatique, d’hydraulique et des télécommunications (INP-ENSEEIHT, Toulouse, France)
Laboratories: IRIT (Toulouse, France) and DIKU (Copenhagen, Denmark)

Awards and grants

- June 2017 Best reviewer award at SSVM 2017 (Köding, Denmark)
- May 2017 Leopold Escande award (Ph.D dissertation [T1])
- May 2017 INP'INNOV award (technological transfer between IRIT and the Pixience company)
- Jan. 2017 Editor's choice award from Image and Vision Computing (Elsevier) for the article [R6]
- July 2015 Grant from LabEx CIMI for a short-term research contract
- Jan. 2014 Best presentation award at CORESA 2014 (Reims, France), for the conference paper [CF4]
- June 2012 Grant from the French ministry of research for a three-years Ph.D (“moniteur”)

Teaching duties in TU Munich

Lectures

- Winter semester **Computer Vision I: Variational Methods**
2017-2018 (*Master, 8ECTS, responsible for the course*)
20 lectures + 10 tutorials (exercises and practicals)
Inverse problems in computer vision (denoising, optical flow, segmentation, reconstruction, etc.): variational formalisation, statistical interpretation and numerical optimisation

Current Ph.D students

- Bjorn HAEFNER *Variational methods for depth super-resolution*, TU Munich (Germany), ERC-funded thesis started in Jan. 2017 - “mentor” (50% supervision with Prof. Daniel CREMERS) - publications: [C15]
- Jean MÉLOU *Creation of 3D-models for the VFX industry*, INP Toulouse and Mikros Image (Levallois-Perret), CIFRE thesis started in July 2016 - 50% supervision with Assoc. Prof. Jean-Denis DUROU) - publications: [C16, C11, CF9, P2]

Current Master students

- Qassim AKHTAR *A portable high resolution 3D-reconstruction system*, started in Jan. 2017, 100% supervision
- Natalia SAIPOVA *High-performance non-convex variational methods for 3D-reconstruction on the GPU*, started in Jan. 2017, 100% supervision

Former Master students

- Hesam RABETI *Incorporating photometric analysis into mobile 3D reconstruction systems*, Nov. 2016 - Jan. 2018, 100% supervision
- Oleksandra GANUS *An RGBD system for acquiring full 3D-shape and reflectance of the human body*, Dec. 2016 - Oct. 2017, 100% supervision
- Basile TOUSSIDE *Real-Time Multi-view RGB-D Fusion based on Color Photometric Stereo*, Jan. - Oct. 2017, 100% supervision
- Christian BUTTNER *Portable and Rapid SVBRDF Capture for Quasi-Planar Surfaces*, Nov. 2016 - Sep. 2017, 100% supervision
- Andreas SEIBOLD *A GPU-accelerated Solver for the Potts Model with Applications in Computer Vision*, Nov. 2016 - Aug. 2017, 50% supervision with Thomas MÖLLENHOFF
- Songyou PENG *High Quality Shape from a RGB-D Camera using Photometric Stereo*, Feb. - May 2017, 100% supervision - publication: [C15]

Participation to a defence jury

- Andrej PANGERCIC *Development of the Low Cost UAV Platform for 3D Reconstruction of the Environment*, Master thesis of the university of Ljubljana (Slovenia) defended in TU Munich on Mar. 29, 2017 (president of the jury)

Former teaching duties

Teaching (in French) in INP-ENSEEIH (Toulouse, France)

- 2012-2016 **Computer vision** (*Master*)
Lectures and practicals
Total: 20 hrs
- 2012-2016 **Signal and image processing** (*Master*)
Lectures and practicals
Total: 80 hrs
- 2012-2016 **Probabilities and statistics** (*Bachelor*)
Lectures, tutorials and practicals
Total: 150 hrs
- 2013-2014 **Operational research** (*Bachelor*)
Lectures, tutorials and practicals
Total: 20 hrs
- 2012-2013 **Android programming** (*Bachelor*)
Practicals
Total: 20 hrs
- 2012-2013 **Distributed systems and applications** (*Bachelor*)
Practicals
Total: 20 hrs

Supervision of research interns in IRIT (Toulouse, France)

- Louis FAUVARQUE *Reading 3D-sonagrams on a smartphone*, June - Sep. 2016, 60% supervision with Assoc. Prof. Jean-Denis DUROU and Gilles AZZARO
- Jade BOUMAZA *Single-view high-precision 3D-reconstruction*, June - Sep. 2015, 60% supervision with Assoc. Profs. Jean-Denis DUROU and François LAUZE - publications: [R7, CF8, CF7]
- Tom LUCAS *Variational fusion of RGBD data*, June - Sep. 2015, 60% supervision with Assoc. Profs. Jean-Denis DUROU and François LAUZE - publications: [R7, CF8, CF7]
- Mathieu PIZENBERG *Geometric and photometric calibration of a dermoscope*, June - Sep. 2014, 60% supervision with Assoc. Prof. Jean-Denis DUROU - publications: [C10, CF10]
- Richard MODRZEJEWSKI *Turning a mobile device into a 3D-scanner*, June - Sep. 2014, 60% supervision with Assoc. Prof. Jean-Denis DUROU and Pierre GURDJOS - publications: [R3, CF4]

Academic service

- Program committee QCAV 2019 (Mulhouse, May 15-17, 2019),
QCAV 2017 (Tokyo, Japan, May 14-16, 2017),
SSVM 2017 (Kolding, Denmark, June 4-8, 2017)
- Chairman QCAV 2017 (Tokyo, Japan, May 14-16, 2017),
SSVM 2017 (Kolding, Denmark, June 4-8, 2017)
- Organiser Workshop “Photometric stereo: from theory to industrial applications”, associated with QCAV 2015 conference (Le Creusot, France, June 3-5, 2015)
- Reviewer for the journals J. Imag. Sci. (SIAM)
Int. J. Comput. Vis. (Springer)
J. Math. Imag. Vis. (Springer)
Trans. Imag. Proc. (IEEE)
Comput. Vis. Image Underst. (Elsevier)
Comput. Graph. (Elsevier)
Sig. Proc.: Image Comm. (Elsevier)
Comput. Vis. (IET)
J. Eng. Research (Kuwait University)

Reviewer for the conferences
WACV 2018 (IEEE)
ICCV 2017 (IEEE)
WACV 2017 (IEEE)
SSVM 2017 (Springer)
QCAV 2017 (SPIE)
RFIA 2016 (AFRIF-AFIA)
QCAV 2015 (SPIE)

Academic collaborations

TU Munich (Germany) Group of Prof. Daniel CREMERS
TU Brandenburg (Germany) Group of Prof. Michael BREUSS
DIKU (Denmark) Assoc. Prof. François LAUZE
La Sapienza (Italy) Prof. Maurizio FALCONE
Univ. Bologna (Italy) Dr. Roberto MECCA
/ Cambridge Univ. (UK)
IMB (Bordeaux) Prof. Jean-François AUJOL
INRIA Nice DR Xavier DESCOMBES
IRIT (Toulouse) Group of Prof. Vincent CHARVILLAT

Industrial collaborations

Google (Munich, Germany) Automatic exposure correction for mobile devices. Tool now integrated to Tango. Nov. 2016 - Jan. 2018
Photoscultura (Eindhoven, Netherlands) Prototyping a human face 3D-scanner. Started Nov. 2016
Mikros Image (Levallois-Perret, France) Computer vision tools for the VFX industry. CIFRE Ph.D thesis of Jean MÉLOU, started July 2016
Pixience (Toulouse, France) Development of a 3D-module for the dermoscope (device for analyzing the human skin). Module commercialised by the company, see <http://www.pixience.com/produits-2/module-3d/>. Technological transfer led by Toulouse Tech Transfer from June 2014 to June 2015
Fitting Box (Toulouse, France) Development of a relighting solution for virtual glasses trial and of a 3D-scanning room prototype (see <http://ubee.enseeiht.fr/dokuwiki/lib/exe/fetch.php?media=vortex:Toulouse+Tech+Transfer-HD.mp4>). Technological transfer led by Toulouse Tech Transfer from Jan. 2013 to June 2014

Mobility

Invited talks in international conferences

SIAM Imaging Sci. 18, Bologna, Italy “A variational approach to shape-from-shading under natural illumination” (Minisymposium “Recent trends in photometric 3D-reconstruction”)

Invited research stays and seminars

Jan. 2018 La Sapienza (Roma, Italy). Invited by Prof. Maurizio FALCONE
Jan. 2018 IMB (Bordeaux, France). Invited by Prof. Adrien RICHOU
Nov. 2017 LAAS (Toulouse, France). Invited by Prof. Patrick DANÈS
Jan. 2017 La Sapienza (Roma, Italy). Invited by Prof. Maurizio FALCONE
July 2016 IMT Atlantique (Brest, France). Invited by Prof. Ronan FABLET
Feb. 2016 DIKU (Copenhagen, Denmark). Invited by Assoc. Prof. François LAUZE

- Jan. 2016 TU Brandenburg (Cottbus, Germany). Invited by Prof. Michael BREUSS
- Dec. 2015 La Sapienza (Roma, Italy). Invited by Prof. Maurizio FALCONE
- Apr. 2015 Univ. of Bologna (Italy). Invited by Dr. Roberto MECCA
- Jan. 2015 TU Brandenburg (Cottbus, Germany). Invited by Prof. Michael BREUSS
- Dec. 2013 DIKU (Copenhagen, Denmark). Invited by Assoc. Prof. François LAUZE
- June - Aug. 2012 DIKU (Copenhagen, Denmark). Invited by Assoc. Prof. François LAUZE

Presentations in conferences

- EMMCVPR 2017 Oral, Venice, Italy, Oct. 2017
- CVPR 2017 Poster, Honolulu, USA, June 2017
- SSVM 2017 Two orals and one poster, Kolding, Denmark, June 2017
- QCAV 2017 Oral, Tokyo, Japan, May 2017
- CVPR 2016 Poster, Las Vegas, USA, June 2016
- ALGORITHMY 2016 Poster, Podbanske, Slovakia, Mar. 2016
- ORASIS 2015 Oral, Amiens, France, June 2015
- SSVM 2015 Deux posters, Lège Cap-Ferret, France, June 2015
- QCAV 2015 Oral, Le Creusot, France, June 2015
- CORESA 2014 Oral, Reims, France, Nov. 2014
- RFIA 2014 Poster, Rouen, France, Nov. 2014
- ORASIS 2013 Oral, Cluny, France, June 2013
- SSVM 2013 Oral, Graz, Austria, June 2013

Workshops attended

- June 2017 CNRS spring school “Méthodes numériques et algorithmes pour la vision par ordinateur: dernières tendances” (poster), Albas, France
- Mar. 2015 Colloquium “Espace, Perspective et Fragmentation” (oral), École supérieure d’audiovisuel (ESAV), Toulouse, France
- Dec. 2014 Conference “Numerical methods for PDEs: optimal control, games and image processing: a conference on the occasion of the 60th birthday of Maurizio Falcone”, La Sapienza, Roma, Italy
- Oct. 2014 Workshop “Variational methods in imaging” (poster), RICAM, Linz, Austria
- Apr. 2014 Seminar “Mesure dimensionnelle par vision” of CNRS GdR ISIS (oral), Telecom ParisTech, Paris, France
- May 2013 CNRS spring school “Nouvelles tendances en vision par ordinateur, approches variationnelles et probabilistes” (poster), Cabrerets, France
- Aug. 2012 Summer school “Domain adaptation in Image Analysis”, Copenhagen, Denmark
- Nov. 2011 Workshop IRIT/Kyushu “Image and Multimedia” (poster), Toulouse, France

General skills

Computer science

- Languages Matlab, C, C++, Python
- OS Windows, GNU/Linux
- Tools GitHub, L^AT_EX, Microsoft Office, LibreOffice, Inkscape, Photoshop

Languages

- Français Native speaker
- English Fluent (C2, 905 TOEIC)
- Spanish Basic knowledge (B1)
- German Notions (A1)

Ph. D. thesis

- [T1] **Y. Quéau**. “Reconstruction tridimensionnelle par stéréophotométrie”. Thèse de doctorat. Université de Toulouse, 2015. 308 pp. URL: <https://hal.archives-ouvertes.fr/tel-01261526>. (**Léopold Escande 2016 award**).

Journal articles

- [R10] **Y. Quéau**, J.-D. Durou, and J.-F. Aujol. “Variational Methods for Normal Integration”. *Journal of Mathematical Imaging and Vision* (2017). Springer, 24 p. URL: <https://dx.doi.org/10.1007/s10851-017-0777-6>. (to appear).
- [R9] **Y. Quéau**, J.-D. Durou, and J.-F. Aujol. “Normal Integration: A Survey”. *Journal of Mathematical Imaging and Vision* (2017). Springer, 18 p. URL: <https://dx.doi.org/10.1007/s10851-017-0773-x>. (to appear).
- [R8] **Y. Quéau**, B. Durix, T. Wu, D. Cremers, F. Lauze, and J.-D. Durou. “LED-based Photometric Stereo: Modeling, Calibration and Numerical Solution”. *Journal of Mathematical Imaging and Vision* (2017). Springer, 28 p. URL: <http://dx.doi.org/10.1007/s10851-017-0761-1>. (to appear).
- [R7] **Y. Quéau**, B. Durix, T. Lucas, J. Boumazza, J.-D. Durou, and F. Lauze. “Fusion de données RVB-D par stéréophotométrie colorée”. *Traitement du Signal* (2017). Lavoisier, 23 p. URL: <https://hal.archives-ouvertes.fr/hal-01409663v1>. (in French, to appear).
- [R6] **Y. Quéau**, R. Mecca, J.-D. Durou, and X. Descombes. “Photometric Stereo with Only Two Images: A Theoretical Study and Numerical Resolution”. *Image and Vision Computing* 57 (2017). Elsevier, pp. 175–191. URL: <https://doi.org/10.1016/j.imavis.2016.11.006>. (**Editor’s choice**).
- [R5] M. Bähr, M. Breuss, **Y. Quéau**, A. S. Boroujerdi, and J.-D. Durou. “Fast and Accurate Surface Normal Integration on Non-Rectangular Domains”. *Computational Visual Media* 3.2 (2017). Springer, pp. 107–129. URL: <https://doi.org/10.1007/s41095-016-0075-z>.
- [R4] R. Mecca, **Y. Quéau**, F. Logothetis, and R. Cipolla. “A Single Lobe Photometric Stereo Approach for Heterogenous Material”. *SIAM Journal on Imaging Sciences* 9.4 (2016). SIAM, pp. 1858–1888. URL: <https://doi.org/10.1137/16M1068177>.
- [R3] **Y. Quéau**, R. Modrzejewski, P. Gurdjos, and J.-D. Durou. “A full photometric and geometric model for attached webcam/matte screen devices”. *Signal Processing: Image Communication* 40 (2016). Elsevier, pp. 65–81. URL: <https://doi.org/10.1016/j.image.2015.11.006>.
- [R2] **Y. Quéau**, F. Lauze, and J.-D. Durou. “Solving Uncalibrated Photometric Stereo using Total Variation”. *Journal of Mathematical Imaging and Vision* 52.1 (2015). Springer, pp. 87–107. URL: <https://doi.org/10.1007/s10851-014-0512-5>.
- [R1] **Y. Quéau**, J.-D. Durou, B. Durix, and V. Charvillat. “Stéréophotométrie non calibrée en présence d’écarts au modèle lambertien”. *Traitement du Signal* 31.1-2 (2014). Lavoisier, pp. 107–141. URL: <http://oatao.univ-toulouse.fr/13008/>. (in French).

Peer-reviewed proceedings of international conferences

- [C16] **Y. Quéau**, J. Mélou, F. Castan, D. Cremers, and J.-D. Durou. “A Variational Approach to Shape-from-shading Under Natural Illumination”. *Energy Minimization Methods for Computer Vision and Pattern Recognition (EMMCVPR)*. Springer. Venice, Italy, 2017. URL: <https://arxiv.org/abs/1709.10354>. 16 p. (to appear).
- [C15] S. Peng, B. Häfner, **Y. Quéau**, and D. Cremers. “Depth Super-Resolution Meets Uncalibrated Photometric Stereo”. *The IEEE International Conference on Computer Vision (ICCV)*. IEEE. Venice, Italy, 2017, pp. 2961–2968. URL: http://openaccess.thecvf.com/content_ICCV_2017_workshops/w43/html/Peng_Depth_Super-Resolution_Meets_ICCV_2017_paper.html.
- [C14] **Y. Quéau**, T. Wu, F. Lauze, J.-D. Durou, and D. Cremers. “A Non-Convex Variational Approach to Photometric Stereo under Inaccurate Lighting”. *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*. IEEE. Honolulu, USA, 2017, pp. 350–359. URL: <https://doi.org/10.1109/CVPR.2017.45>.

- [C13] **Y. Quéau**, T. Wu, and D. Cremers. “Semi-Calibrated Near-Light Photometric Stereo”. *International Conference on Scale Space and Variational Methods in Computer Vision (SSVM)*. Vol. 10302. Lecture Notes in Computer Science. Springer. Kolding, Denmark, 2017, pp. 656–668. URL: https://doi.org/10.1007/978-3-319-58771-4_52.
- [C12] F. Lauze, **Y. Quéau**, and H.-O. Sorensen. “Simultaneous Reconstruction and Segmentation of CT Scans with Shadowed Data”. *International Conference on Scale Space and Variational Methods in Computer Vision (SSVM)*. Vol. 10302. Lecture Notes in Computer Science. Springer. Kolding, Denmark, 2017, pp. 308–319. URL: https://doi.org/10.1007/978-3-319-58771-4_25.
- [C11] J. Mélou, **Y. Quéau**, J.-D. Durou, F. Castan, and D. Cremers. “Beyond Multi-view Stereo: Shading-Reflectance Decomposition”. *International Conference on Scale Space and Variational Methods in Computer Vision (SSVM)*. Vol. 10302. Lecture Notes in Computer Science. Springer. Kolding, Denmark, 2017, pp. 694–705. URL: https://doi.org/10.1007/978-3-319-58771-4_55. **(Selected for publication of an extended version in Journal of Mathematical Imaging and Vision)**.
- [C10] **Y. Quéau**, M. Pizenberg, J.-D. Durou, and D. Cremers. “Microgeometry capture and RGB albedo estimation by photometric stereo without demosaicing”. *International Conference on Quality Control by Artificial Vision (QCAV)*. Vol. 1338. Proceedings of SPIE. SPIE Digital Library. Tokyo, Japan, 2017. URL: <http://dx.doi.org/10.1117/12.2266080>. 7 p.
- [C9] **Y. Quéau**, R. Mecca, and J.-D. Durou. “Unbiased Photometric Stereo for Colored Surfaces: A Variational Approach”. *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*. IEEE. Las Vegas, USA, 2016, pp. 4359–4368. URL: <https://doi.org/10.1109/CVPR.2016.472>.
- [C8] L. Hoeltgen, **Y. Quéau**, M. Breuß, and G. Radow. “Optimised photometric stereo via non-convex variational minimisation”. *British Machine Vision Conference (BMVC)*. BMVA Press. York, United Kingdom, 2016, pp. 36.1–36.12. URL: <http://www.bmva.org/bmvc/2016/papers/paper036/>.
- [C7] F. Logothetis, R. Mecca, **Y. Quéau**, and R. Cipolla. “Near-Field Photometric Stereo in Ambient Light”. *British Machine Vision Conference (BMVC)*. BMVA Press. York, United Kingdom, 2016, pp. 61.1–61.12. URL: <http://www.bmva.org/bmvc/2016/papers/paper061/>.
- [C6] R. Mecca and **Y. Quéau**. “Unifying diffuse and specular reflections for the photometric stereo problem”. *IEEE Winter Conference on Applications of Computer Vision (WACV)*. IEEE. Lake Placid, USA, 2016, pp. 1–9. URL: <https://doi.org/10.1109/WACV.2016.7477643>.
- [C5] M. Breuß, **Y. Quéau**, M. Bähr, and J.-D. Durou. “Highly Efficient Surface Normal Integration”. *Algorithmy Conference on Scientific Computing (ALGORITMY)*. Slovak University of Technology. Podbanske, Slovakia, 2016, pp. 204–213. URL: <http://www.iam.fmph.uniba.sk/amuc/ojs/index.php/algoritmy/article/view/409>.
- [C4] **Y. Quéau**, F. Lauze, and J.-D. Durou. “A L1-TV Algorithm for Robust Perspective Photometric Stereo with Spatially-Varying Lightings”. *International Conference on Scale Space and Variational Methods in Computer Vision (SSVM)*. Vol. 9087. Lecture Notes in Computer Science. Springer. Lège Cap-Ferret, France, 2015, pp. 498–510. URL: https://doi.org/10.1007/978-3-319-18461-6_40.
- [C3] **Y. Quéau** and J.-D. Durou. “Edge-Preserving Integration of a Normal Field: Weighted Least Squares, TV and L1 Approaches”. *International Conference on Scale Space and Variational Methods in Computer Vision (SSVM)*. Vol. 9087. Lecture Notes in Computer Science. Springer. Lège Cap-Ferret, France, 2015, pp. 576–588. URL: https://doi.org/10.1007/978-3-319-18461-6_46.
- [C2] **Y. Quéau** and J.-D. Durou. “Some Illumination Models for Industrial Applications of Photometric Stereo”. *International Conference on Quality Control by Artificial Vision (QCAV)*. Vol. 9534. Proceedings of SPIE. SPIE Digital Library. Le Creusot, France, 2015. URL: <http://dx.doi.org/10.1117/12.2182921>. 7 p.
- [C1] **Y. Quéau**, F. Lauze, and J.-D. Durou. “Solving the Uncalibrated Photometric Stereo Problem using Total Variation”. *International Conference on Scale Space and Variational Methods in Computer Vision (SSVM)*. Vol. 7893. Lecture Notes in Computer Science. Springer. Schloss Seggau, Austria, 2013, pp. 270–281. URL: https://doi.org/10.1007/978-3-642-38267-3_23.

Peer-reviewed proceedings of French conferences

- [CF10] **Y. Quéau**, M. Pizenberg, D. Cremers, and J.-D. Durou. “Stéréophotométrie microscopique sans démosaïquage”. *Colloque GRETSI*. Juan-les-Pins, France, 2017. URL: https://vision.in.tum.de/_media/spezial/bib/gretsifr.pdf. 4 p.
- [CF9] J. Mélou, **Y. Quéau**, J.-D. Durou, F. Castan, and D. Cremers. “Estimation de la réflectance à partir de données multi-vues”. *Congrès ORASIS des jeunes chercheurs en vision par ordinateur*. AFRIF. Colleville-sur-Mer, France, 2017. URL: https://www.irit.fr/~Jean-Denis.Durou/PUBLICATIONS/orasis_2017.pdf. 8 p.
- [CF8] **Y. Quéau**, B. Durix, T. Lucas, J. Boumaza, J.-D. Durou, and F. Lauze. “Fusion de données RVB-D par stéréophotométrie colorée”. *Congrès francophone de reconnaissance des formes et intelligence artificielle (RFIA)*. AFRIF-AFIA. Clermont-Ferrand, France, 2016. URL: <http://rfia2016.iut-auvergne.com/media/articles/CPV03.pdf>. 8 p. **(Selected for publication of an extended version in *Traitement du Signal*)**.
- [CF7] B. Durix, **Y. Quéau**, T. Lucas, J. Boumaza, J.-D. Durou, and F. Lauze. “Étalonnage de sources lumineuses de type LED”. *Congrès francophone de reconnaissance des formes et intelligence artificielle (RFIA)*. AFRIF-AFIA. Clermont-Ferrand, France, 2016. URL: <http://rfia2016.iut-auvergne.com/media/articles/CPV02.pdf>. 8 p.
- [CF6] **Y. Quéau**, J.-D. Durou, and X. Descombes. “Que peut-on apprendre d’une scène vue par une webcam à partir d’images prises au cours d’une journée ensoleillée ?” *Congrès ORASIS des jeunes chercheurs en vision par ordinateur*. AFRIF. Amiens, France, 2015. URL: <https://hal.archives-ouvertes.fr/hal-01161843>. 8 p.
- [CF5] **Y. Quéau** and J.-D. Durou. “Intégration d’un champ de gradient rapide et robuste aux discontinuités - Application à la stéréophotométrie”. *Congrès francophone de reconnaissance des formes et intelligence artificielle (RFIA)*. AFRIF-AFIA. Rouen, France, 2014. URL: <https://hal.archives-ouvertes.fr/hal-00989064/>. 8 p.
- [CF4] **Y. Quéau**, R. Modrzejewski, P. Gurdjos, and J.-D. Durou. “Transformation d’un dispositif multi-média webcam-écran en un scanner 3D”. *Compression et REprésentation des Signaux Audiovisuels (CORESA)*. IUT de Reims. Reims, France, 2014. URL: <https://hal.archives-ouvertes.fr/hal-01120851>. 6 p. **(Best presentation award - Selected for publication of an extended version in *Signal Processing: Image Communications*)**.
- [CF3] **Y. Quéau** and J.-D. Durou. “Résolution du problème de la stéréophotométrie non calibrée par estimation de l’intensité des éclairages”. *Congrès ORASIS des jeunes chercheurs en vision par ordinateur*. AFRIF. Cluny, France, 2013. URL: <https://hal.archives-ouvertes.fr/hal-00829380/>. 8 p. **(Selected for publication of an extended version in *Traitement du Signal*)**.
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