Complete Publication List

Andrés ALMANSA
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Contents

Part I.
PhD Thesis Supervision

Supervised PhD theses

T1 *Neus Sabater* (ENS Cachan 2006-2009).
Co-supervised at 50% with JM. Morel
"Fiabilité et précision en stéréoscopie : application à l'imagerie aérienne et satellitaire à haute résolution" [URL]
Became postdoc at Caltech then researcher with Technicolor.

T2 *Mariano Tepper* (Univ de Buenos Aires 2007-2011).
Co-supervised at 30% with M. Mejail and P. Musé.
"Detecting clusters and boundaries: a twofold study on shape representation" [PDF]
Currently postdoc chez G. Sapiro (Duke University).

T3 *Eric Bughin* (ENS Cachan 2007-2011).
Supervised à 100%
"Vers une vectorisation précise, automatique et validée en stéréoscopie satellitaire en milieu urbain" [URL]
Became research engineer with DxO Labs (Boulogne), and with Apple Research (CA, Etats Unis).

T4 *Julien Caron* (Univ. Picardie 2008-2012).
Co-supervised at 50% with Sylvain Durand.
"Restauration en échantillonnage irrégulier : Théorie et applications aux signaux et images satellitaires" [URL]
Currently research engineer with Bioaxial.

T5 *Mauricio Delbracio* (ENS Cachan & UdelaR 2009-2012).
Co-supervised at 30% with JM Morel et P. Musé.
"Two Problems of Digital Image Formation: Recovering the Camera Point Spread Function and Boosting Stochastic Renderers by Auto-similarity Filtering" [URL]
Currently postdoc with G. Sapiro (Duke University).

T6 *Thierry Guillemot* (Télécom ParisTech 2010-2013),
Co-supervised at 50% with Tamy Boubekeur,
"Méthodes et Structures Non Locales pour la Restauration d'Images et de Surfaces 3D" [URL]
became research engineer with MAP5 - Université Paris Descartes, and Telecom ParisTech.

T7 *Alasdair Newson* (Technicolor/ Télécom ParisTech 2011-2013)
Co-supervised at 30% with Yann Gousseau et Patrick Perez.
"On Video Completion : Line Scratch Detection and Video Inpainting of Complex Scenes" [PDF]
Became postdoc with Duke University and with MAP5 - Université Paris Descartes.

T9 *Yann Traonmilin* (Télécom ParisTech 2011-2014)
Co-supervised at 50% with Said Ladjal.
"Relations entre le modèle d'image et le nombre de mesures pour une super-résolution fidèle"

[PDF]
Currently postdoc with INRIA (équipe PANAMA dirigé par Remi Gribonval).

T10 *Antoine Deblonde* (Morpho / Télécom ParisTech 2011-2015)
Co-supervised at 50% with Said Ladjal et Cedric Beliard
"Algorithmes rapides et fiables de recherche dans une base d'images d'empreintes digitales"
[PDF]
Currently Data Scientist with Morpho and Noventia.

Ongoing PhD theses

T8 *Javier Preciozzi* (UdelaR-IIE 2011-2015)
Co-supervised at 50% with Pablo Musé.
"Restauration in satellite imaging."
Media beca uruguaya (ANII) + contratos de investigacion CNES

T13 *Paul Riot* (Télécom ParisTech 2014-2018)
Co-supervised at 30% with Yann Gousseau et Florence Tupin
"Restauration Multi-Images"
Bourse Ministérielle.

T14 *Clara Barbanson* (Onera / Télécom ParisTech 2014-2018)
Co-supervised at 50% with Y. Ferrec et P. Monasse
"Correction des effets de relief en spectroimagérie aéroportée."
Bourse ONERA.

T15 *Antoine Houdard* (Télécom ParisTech 2015-2019)
Co-supervised at 50% with Julie Delon (Univ. Paris-Descartes)
"Géométrie & Statistique de l'Auto-similarité des Images Naturelles. Applications à la Résolution de Problèmes Inverses"
Bourse d'excellence "Futur & Ruptures" de la Fondation Mines-Télécom

T16 *Thuc Trinh Le* (Télécom ParisTech 2015-2019)
Co-supervised at 33% with Y. Gousseau et S. Masnou (Univ. de Lyon 1)
"Inpainting vidéo par méthodes non locales".
Bourse financée par ANR MIRIAM.

Visiting PhD Students

T11 *Matias di Martino* (UdelaR, Uruguay)
Encadré à 100% pendant 6 mois de séjour doctoral au LTCI / Télécom ParisTech en 2013.
"Hybrid optical/digital methods for image acquisition."

T12 *Raghavendra Bhalerao* (IIT, India)
Encadré à 100% pendant 6 mois de séjour doctoral au LTCI / Télécom ParisTech en 2012.
"Low baseline multi-stereo."

Part II.
Publications

Preprints and Submitted Articles

[P4] Cecilia Aguerrebere, Andrés Almansa, Yann Gousseau, Julie Delon, and Pablo Musé. A Hyperprior Bayesian Approach for Solving Image Inverse Problems. Technical report, 2014. URL https://hal.archives-ouvertes.fr/hal-01107519.

[P3] Julien Caron, Denis Jouglet, Andrés Almansa, Sylvain Durand, and Saïd Ladjal. An application of multiband signals sampling to a static interferometry problem. submitted - ch 5 in Caron's PhD thesis, [URL], 2012.

[P2] Yann Traonmilin, Saïd Ladjal, and Andrés Almansa. On the amount of regularization for super-resolution reconstruction. submitted, [Preprint], December 2012.

[P1] Mariano Tepper, Pablo Musé, and Andrés Almansa. Meaningful clustered forest: an automatic and robust clustering algorithm. submitted, [Preprint], July 2011.

Book Chapters

[B2] Julie Delon and Andrés Almansa. Reconstruction stéréo à faible rapport B/H. Traités IC2: Information – Commande – Communication, book chapter/section 12. Hermes-Science, Lavoisier, 2009. [URL].

[B1] Andrés Almansa and Tony Lindeberg. Enhancement of Fingerprint Images Using Shape-Adaptation of Scale-Space Operators. volume 8 of *Computational Imaging and Vision*, book chapter/section 2, pages 21–29. Kluwer Academic Publishers, 1997. DOI:10.1007/978-94-015-8802-7_2.

Journal Articles

[J23] Yann Traonmilin, Saïd Ladjal, and Andrés Almansa. Robust Multi-image Processing With Optimal Sparse Regularization. *Journal of Mathematical Imaging and Vision*, 51(3):413–429, 2015. DOI:10.1007/s10851-014-0532-1. [Preprint].

[J22] Alasdair Newson, Andrés Almansa, Matthieu Fradet, Yann Gousseau, and Patrick Pérez. Video Inpainting of Complex Scenes. *SIIMS - SIAM Journal on Imaging Sciences*, 7(4):1993–2019, January 2014a. DOI:10.1137/140954933. [Demo][Preprint].

[J21] Alasdair Newson, Andres Almansa, Yann Gousseau, and Patrick Perez. Robust Automatic Line Scratch Detection in Films. *IEEE Transactions on Image Processing*, 23(3):1240–1254, March 2014b. ISSN 1057-7149. DOI:10.1109/TIP.2014.2300824. [Demo] [Preprint].

[J20] Mariano Tepper, Pablo Musé, Andrés Almansa, and Marta Mejail. Finding contrasted and regular edges by a contrario detection of periodic subsequences. *Pattern Recognition*, 47(1):72–79, January 2014. DOI:10.1016/j.patcog.2013.06.025. [PDF].

[J19] Mauricio Delbracio, Andrés Almansa, and Pablo Musé. Recovering the Subpixel PSF from Two Photographs at Different Distances. *Image Processing On Line*, 2013:232–241, October 2013. ISSN 2105-1232. DOI:10.5201/ipol.2013.77. [URL].

[J18] Mariano Tepper, Pablo Musé, and Andrés Almansa. On the role of contrast and regularity in perceptual boundary saliency. *Journal of Mathematical Imaging and Vision*, 2012. [preprint], [URL].

[J17] Mauricio Delbracio, Andrés Almansa, Jean-Michel Morel, and Pablo Musé. Subpixel Point Spread Function Estimation from Two Photographs at Different Distances. *SIAM Journal on Imaging Sciences*, 5(4):1234–1260, November 2012a. ISSN 1936-4954. DOI:10.1137/110848335. [preprint], [URL].

[J16] Mauricio Delbracio, Pablo Muse, Andres Almansa, and Jean-Michel Morel. The Non-parametric Sub-pixel Local Point Spread Function Estimation Is a Well Posed Problem. *International Journal of Computer Vision*, 96(2):175–194, January 2012b. ISSN 0920-5691. [Preprint], [URL].

[J15] Mauricio Delbracio, Pablo Musé, and Andrés Almansa. Non-parametric Sub-pixel Local Point Spread Function Estimation. *Image Processing On Line*, March 2012c. ISSN 2105-1232. DOI:10.5201/ipol.2012.admm-nppsf. [URL].

[J14] Neus Sabater, Andrés Almansa, and Jean-Michel Morel. Meaningful matches in stereovision. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 34(5):930–42, May 2012. ISSN 1939-3539. DOI:10.1109/TPAMI.2011.207. [Preprint], [Preprint], [URL].

[J13] N. Sabater, J.-M. Morel, and A. Almansa. How Accurate Can Block Matches Be in Stereo Vision? *SIAM Journal on Imaging Sciences*, 4(1):472–500, January 2011. ISSN 1936-4954. DOI:10.1137/100797849. [Preprint], [URL].

[J12] Mariano Tepper, Pablo Musé, Andrés Almansa, and Marta Mejail. Automatically finding clusters in normalized cuts. *Pattern Recognition*, 44(7):1372–1386, July 2011. ISSN 00313203. DOI:10.1016/j.patcog.2011.01.003. [Preprint], [URL].

[J11] Gabriele Facciolo, Andrés Almansa, Jean-François Aujol, and Vicent Caselles. Irregular to Regular Sampling, Denoising, and Deconvolution. *Multiscale Modeling & Simulation*, 7(4):1574–1608, January 2009. ISSN 1540-3459. DOI:10.1137/080719443. [Preprint], [URL].

[J10] A. Almansa, C. Ballester, V. Caselles, and G. Haro. A TV Based Restoration Model with Local Constraints. *Journal of Scientific Computing*, 34(3):209–236, October 2007. ISSN 0885-7474. DOI:10.1007/s10915-007-9160-x. [URL].

[J9] L. Igual, J. Preciozzi, L. Garrido, A. Almansa, V. Caselles, and B. Rougé. Automatic low baseline stereo in urban areas. *Inverse Problems and Imaging*, 1(2):319–348, May 2007. DOI:10.3934/ipi.2007.1.319. [PDF].

[J8] Andrés Almansa, Vicent Caselles, Gloria Haro, and Bernard Rougé. Restoration and Zoom of Irregularly Sampled, Blurred, and Noisy Images by Accurate Total Variation Minimization with Local Constraints. *Multiscale Modeling & Simulation*, 5(1):235–272, 2006. [URL].

[J7] Andres Almansa, Sylvain Durand, and Bernard Rouge. Measuring and improving image resolution by adaptation of the reciprocal cell. *Journal of Mathematical Imaging and Vision*, 21(3):235–279, November 2004. ISSN 0924-9907. DOI:10.1023/B:JMIV.0000043739.51886.01. [URL].

[J6] A. Almansa, A. Desolneux, and S. Vamech. Vanishing point detection without any a priori information. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 25(4):502–507, April 2003. ISSN 0162-8828. DOI:10.1109/TPAMI.2003.1190575. [URL].

[J5] Andrés Almansa, Fréderic Cao, Yann Gousseau, and B. Rougé. Interpolation of digital elevation models using AMLE and related methods. *IEEE Transactions on Geoscience and Remote Sensing*, 40(2):314–325, 2002. ISSN 01962892. DOI:10.1109/36.992791. [URL].

[J4] A. Almansa and T. Lindeberg. Fingerprint enhancement by shape adaptation of scale-space operators with automatic scale selection. *IEEE transactions on image processing : a publication of the IEEE Signal Processing Society*, 9(12):2027–42, January 2000. ISSN 1057-7149. DOI:10.1109/83.887971. [URL].

[J3] Carlo Graziani and Andrés Almansa. Ein Algoritmus zur Simulation linearer dynamischer Modelle in kontinuirlicher Zeitformulierung unter vollkommener Voraussicht. *WirtschaftsWissenschaftliches Studium*, 27(6):319–324, June 1998a.

[J2] Carlo Graziani and Andrés Almansa. Un algoritmo para la simulación de modelos lineales en tiempo continúo bajo previsión perfecta. *Estudios de Economía*, 24(1):185–196, June 1997. [URL].

[J1] Carlo Graziani and Andrés Almansa. Un procedimiento para la simulación de modelos lineales en tiempo continuo con previsión perfecta e histéresis. *Estudios Económicos*, 13(1):35–56, 1998b. [URL].

Conference Proceedings

[C34] J. Preciozzi, P. Muse, A. Almansa, S. Durand, A. Khazaal, and B. Rouge. SMOS images restoration from L1A data: A sparsity-based variational approach. In *(IGARSS 2015) IEEE Geoscience and Remote Sensing Symposium*, pages 2487–2490, jul 2014. ISBN 978-1-4799-5775-0. DOI:10.1109/IGARSS.2014.6946977. [PDF].

[C33] Cecilia Aguerrebere, Andrés Almansa, Julie Delon, Yann Gousseau, and Pablo Musé. Single Shot High Dynamic Range Imaging Using Piecewise Linear Estimators. In *IEEE International Conference on Computational Photography (ICCP)*, 2014. DOI:10.1109/ICCPHOT.2014.6831807. [Preprint].

[C32] Thierry Guillemot, Andrés Almansa, and Tamy Boubekeur. Covariance Trees for 2D and 3D Processing. In *(CVPR 2014) IEEE Conference on Computer Vision and Pattern Recognitiongnition*, pages 556–563, 2014. DOI:10.1109/CVPR.2014.78. [Demo and Preprint].

[C31] Mariano Tepper, Marta Mejail, Pablo Musé, and Andrés Almansa. Boruvka Meets Nearest Neighbors. In *18th Iberoamerican Congress, CIARP 2013*, volume 8259 of *Springer LNCS*, pages 560–567, 2013. DOI:10.1007/978-3-642-41827-3_70. [Preprint].

[C30] Raghavendra H Bhalerao, Shirish S Gedam, Jyoti Joglekar, and Andres Almansa. Lunar impact crater modeling using trinocular stereoscopic depth inpainting. In *2013 IEEE Second International Conference on Image Information Processing (ICIIP-2013)*, pages 1–5. IEEE, December 2013a. ISBN 978-1-4673-6101-9. DOI:10.1109/ICIIP.2013.6707543.

[C29] Yann Traonmilin, Saïd Ladjal, and Andrés Almansa. Outlier Removal Power of the L1-Norm Super-Resolution. In *4th International Conference, SSVM 2013,*, volume 7893 of *Lecture Notes in Computer Science*, pages 198–209. Springer, June 2013a. DOI:10.1007/978-3-642-38267-3_17. [Preprint], [URL].

[C28] Alasdair Newson, Matthieu Fradet, Patrick Pérez, Andrés Almansa, Yann Gousseau, Matthieu Fradet, Yann Gousseau, and Patrick Pérez. Towards Fast Generic Video Inpainting. In *Proceedings of the 10th European Conference on Visual Media Production - CVMP '13*, page in print, London, November 2013a. ACM Press. Google Best student paper prize £ 2000, [Preprint].

[C27] A Newson, A Almansa, M Fradet, Y Gousseau, and P Perez. Vers un inpainting vidéo automatique, rapide et générique. In *(Gretsi 2013) 23ème Colloque Gretsi*, Brest, 2013b.

[C26] Thierry Guillemot, Andrés Almansa, and Tamy Boubekeur. Non Local Point Set Surfaces. In *Eurographics Symposium on Geometry Processing*, page best poster award, Talinn, Estonia, July 2012a. [URL].

[C25] Yann Traonmilin, Andrés Almansa, and Saïd Ladjal. Quantification de la robustesse de la super-résolution par minimisation L1. In *23ème Colloque Gretsi (Gretsi 2013)*, September 2013b. [Preprint].

[C24] Raghavendra H Bhalerao, Shirish S Gedam, and Andrés Almansa. Fast Epipolar Resampling of Trinocular Linear Scanners Images using Chandrayaan-1 TMC Dataset. In *Second International Conference on Image Information Processing (ICIIP 2013)*. IEEE, 2013b. DOI:10.1109/ICIIP.2013.6707546.

[C23] Alasdair Newson, Andrés Almansa, Yann Gousseau, and Patrick Pérez. Temporal filtering of line scratch detections in degraded films. In *(ICIP 2013) IEEE International Conference on Image Processing*, pages 4088–4092. IEEE, September 2013c. ISBN 9781479923410. DOI:10.1109/ICIP.2013.6738842.

[C22] Alasdair Newson, Patrick Perez, Andrés Almansa, and Yann Gousseau. Adaptive line scratch detection in degraded films. In *Proceedings of the 9th European Conference on Visual Media Production - CVMP '12*, 2012. [URL].

[C21] Thierry Guillemot, Andres Almansa, and Tamy Boubekeur. Non local point set surfaces. In *3D Imaging, Modeling, Processing, Visualization and Transmission (3DIMPVT)*, pages 324–331. IEEE, October 2012b. ISBN 978-1-4673-4470-8. DOI:10.1109/3DIMPVT.2012.71. [URL].

[C20] Mariano Tepper, Pablo Musé, Andrés Almansa, and Marta Mejail. Finding Edges by a Contrario Detection of Periodic Subsequences. In Luis Alvarez, Marta Mejail, Luis Gomez, and Julio Jacobo, editors, *Progress in Pattern Recognition, Image Analysis, Computer Vision, and Applications (CIARP)*, volume 7441 of *Lecture Notes in Computer Science*, pages 773–780. Springer, 2012. ISBN 978-3-642-33274-6. DOI:10.1007/978-3-642-33275-3. extended version in [J20] Pattern Recognition 47(1), 72–79, [URL].

[C19] Yann Traonmilin, Saïd Ladjal, and Andrés Almansa. On the amount of regularization for super-resolution interpolation. In *EUSIPCO 2012 - 20th European Signal Processing Conference*, 2012. [PDF].

[C18] J. Preciozzi, P. Muse, A. Almansa, S. Durand, F. Cabot, Y. Kerr, A. Khazaal, and B. Rouge. Sparsity-based restoration of smos images in the presence of outliers. In *International Geoscience and Remote Sensing Symposium (IGARSS)*, pages 3501 –3504, july 2012. DOI:10.1109/IGARSS.2012.6350665.

[C17] N. Sabater, G. Blanchet, L. Moisan, A. Almansa, and J.-M. JM. Morel. Review of low-baseline stereo algorithms and benchmarks. In Lorenzo Bruzzone, editor, *Image and Signal Processing for Remote Sensing XVI*, volume 7830, pages 783005–783005–12, Toulouse, 2010a. SPIE. DOI: 10.1117/12.865087. [URL].

[C16] A. Almansa, J. Caron, and S. Durand. Deblurring of irregularly sampled images by TV regularization in a spline space. In *International Conference on Image Processing (ICIP)*, pages 1181–1184, Hong Kong, Hong Kong, September 2010. IEEE. ISBN 978-1-4244-7992-4. DOI:10.1109/ICIP.2010.5651868. [Preprint], [URL].

[C15] N. Sabater, J. Morel, A. Almansa, and G. Blanchet. Discarding moving objects in quasi-simultaneous stereovision. In *International Conference on Image Processing (ICIP)*, pages 2957 –2960, sept. 2010b. DOI:10.1109/ICIP.2010.5653500.

[C14] E. Bughin, A. Almansa, R. Grompone von Gioi, and Y. Tendero. Fast plane detection in disparity maps. In *International Conference on Image Processing (ICIP)*, pages 2961–2964, Hong Kong, Hong Kong, September 2010. IEEE. ISBN 978-1-4244-7992-4. DOI:10.1109/ICIP.2010.5653440. [URL].

[C13] Eric Bughin and Andrés Almansa. Planar patch detection for disparity maps. In *3DPVT 2010 Where 3D Computer Graphics and Computer Vision*, 2010. [PDF].

[C12] N. Sabater, J.M. Morel, and A. Almansa. Sub-pixel stereo matching. In *International Geoscience and Remote Sensing Symposium (IGARSS)*, pages 3182–3185, Honolulu, HI, USA, July 2010c. IEEE. ISBN 978-1-4244-9565-8. DOI:10.1109/IGARSS.2010.5649649. [URL].

[C11] Mariano Tepper, Francisco Gómez, Pablo Musé, Andrés Almansa, and Marta Mejail. Morphological Shape Context: Semi-locality and Robust Matching in Shape Recognition. In *(CIARP 2009) Progress in Pattern Recognition, Image Analysis, Computer Vision, and Applications*, number ii, pages 129–136, Guadalajara, Mexico, November 2009. Springer. DOI:10.1007/978-3-642-10268-4_15. [URL].

[C10] M. Rodriguez, J. Preciozzi, G. Facciolo, and A. Almansa. Simulation and Real-Time Visualization of Changing Baseline in a Stereo Pair. In J. J. Villanueva, editor, *Visualization, Imaging, and Image Processing ˜VIIP 2008˜ (1-3 September 2008)*. Acta Press, September 2008. [URL].

[C9] Andrés Almansa, Mijail Gerschuni, Alvaro Pardo, and Javier Preciozzi. Processing of 2D Electrophoresis Gels. In *ICCV International Workshop on Computer Vision for Developing Regions (October 2007)*, October 2007. [URL].

[C8] Gabriele Facciolo, Federico Lecumberry, Andrés Almansa, Alvaro Pardo, Vicent Caselles, and Bernard Rougé. Constrained Anisotropic Diffusion and some Applications. In *British Machine Vision Conference (BMVC 2006)*, Edinburgh, September 2006. [URL].

[C7] Gabriele Facciolo, Andrés Almansa, and Alvaro Pardo. Variational approach to interpolate and correct biases in stereo correlation. In *(Gretsi 2005) 20eme Colloque sur le traitement du signal et des images*, pages 1132–1135, 2005. [URL].

[C6] A. Almansa. Image resolution measure with applications to restoration and zoom. In *International Geoscience and Remote Sensing Symposium (IGARSS)*, volume 6, pages 3830–3832. IEEE, July 2003. ISBN 0-7803-7929-2. DOI:10.1109/IGARSS.2003.1295284. [URL].

[C5] Andrés Almansa, Stéphane Jaffard, and Bernard Rougé. Perturbed Sampling in Satellite Images and Reconstruction ALgorithms. In *(Gretsi 2001) 18eme Colloque sur le traitement du signal et des images*. GRETSI, Groupe d'Etudes du Traitement du Signal et des Images, 2001.

[C4] A. Almansa and L. Cohen. Fingerprint image matching by minimization of a thin-plate energy using a two-step algorithm with auxiliary variables. In *Proc. Workshop on Applications of Computer Vision (WACV)*, pages 35–40, Palm Springs, CA, USA, 2000. IEEE Comput. Soc. ISBN 0-7695-0813-8. DOI:10.1109/WACV.2000.895400. [URL].

[C3] Gustavo Drets, Rosario Curbelo, Olaf Bergengruen, and Andrés Almansa. Métodos de impresión fiel para huellas dactilares. In *Memorias de la XXII Conferencia Latinoamericana de Informática (CLEI Panel 96)*, volume 2, pages 659 – 670, Santafé de Bogotá, Colombia, 1996.

[C2] Rosario Curbelo, Andrés Almansa, Gustavo Drets, and Olaf Bergengruen. Transmisión remota de huellas dactilares para la justicia en el uruguay. In *Jornadas Chilenas de la Computación. Actas del IV Encuentro Chileno de Computación*, pages 93 – 98, Valdivia, Chile, 1996.

[C1] Andrés Almansa, Olaf Bergengruen, Rosario Curbelo, and Gustavo Drets. Sistema de transmisión remota de huellas dactilares. In *Memorias del 5to. Congreso Internacional de Nuevas Tecnologías de La Habana, INFORMATICA'96*, La Habana, Cuba, 1996.

Patent Application

2014 A. Newson, A. Almansa, M. Fradet, Y. Gousseau, P. Perez, *Method for inpainting a target area in a target video*, European Patent Application nro 14305096.1. [URL]

Part III.
Oral Presentations (Selection)

Invited Presentations in International Conferences

DID 2015, Cambridge *Invited Presentation* (30 min), Challenges in Dynamic Imaging Data, Workshop organized at the Isaac Newton Institute, Cambridge University, as part of the Turing Gateway to Mathematics. [slides] [video]

TSIMF 2015, Chine *Invited Presentation* (40 min), Workshop on New Trends in Optimization for Imaging, Tsinghua Sanya International Mathematics Forum, Sanya, Chine.

FoCM 2014, Uruguay *Invited Presentation* (30 min), Workshop on Computational Harmonic Analysis, Signal and Image Processing, Foundations of Computational Mathematics, Sanya, 2015.

CLEI 2014, Uruguay *Keynote Speaker* (60 min), Latin American Computing Conference, Montevideo, 2014.

SIAM IS14, Hong Kong *Invited Presentation* (30 min), SIAM Conference on IMAGING SCIENCE, MS21, Hong Kong, 2014.

SIAM IS12, USA *Invited Presentation* (30 min), SIAM Conference on IMAGING SCIENCE, Philadelphia, 2012.

Univ. Coimbra 2010, Protugal *Invited Tutorial* (5h) "Highly Accurate Image Restoration and Matching" at the Summer School on Imaging Sciences and Medical Applications, Univ. Coimbra, Portugal.

ICIAM 2007, Suisse *Invited Presentation* (30 min), 6th International Congress on Industrial and Applied Mathematics, Zurich, 2007.

Invited Presentations in Regional Conferences

JBAMI 2014, Bordeaux *Présentation Plénière* (50 min), 2nd Workshop on Mathematical Analysis of Images in Bordeaux.

MIO 2012, Orléans *Présentation Plénière* (45 min) 3rd Conference Mathematics & Image Processing, Orléans.

Part IV.
Bibliometrics

Google Scholar *h-index*: 16, as of december 22nd 2015. More details online `http://scholar.google.fr/citations?user=e1pFlV0AAAAJ&hl=en` and in Figure 1

Web of Science *h-index*: 8, as of december 22nd 2015. more details online `http://www.researcherid.com/rid/A-4152-2008` and in Figure 2

Selection of 10 most significant publications Table 1 shows a selection of 10 most significant publications including 4 recent publications and only 2 co-authored with my thesis supervisor.

Recent Articles Table 2 shows a selection of my 5 most recent publications, and the importance of the corresponding journals according to the h5-index.

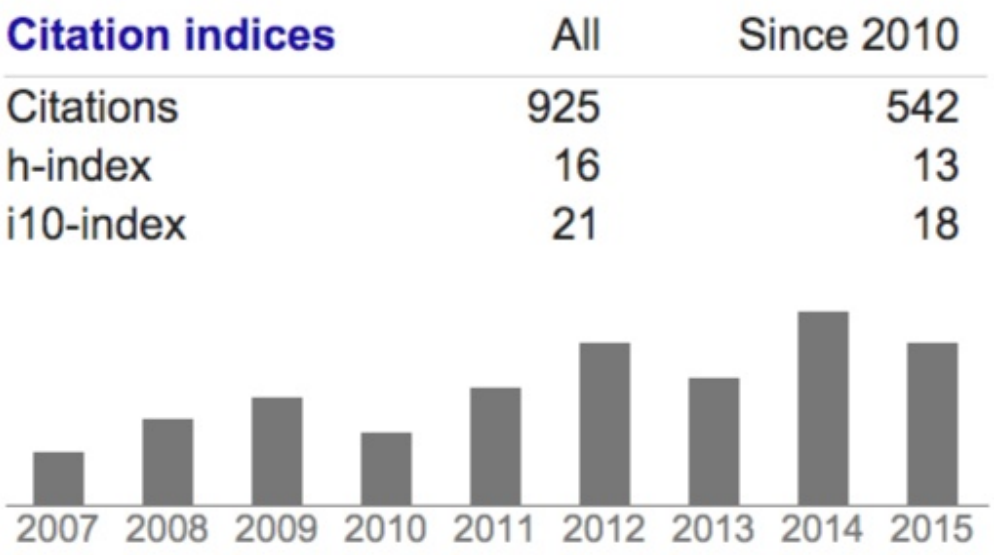

Figure 1: Google scholar citation metrics as of December 22nd 2015

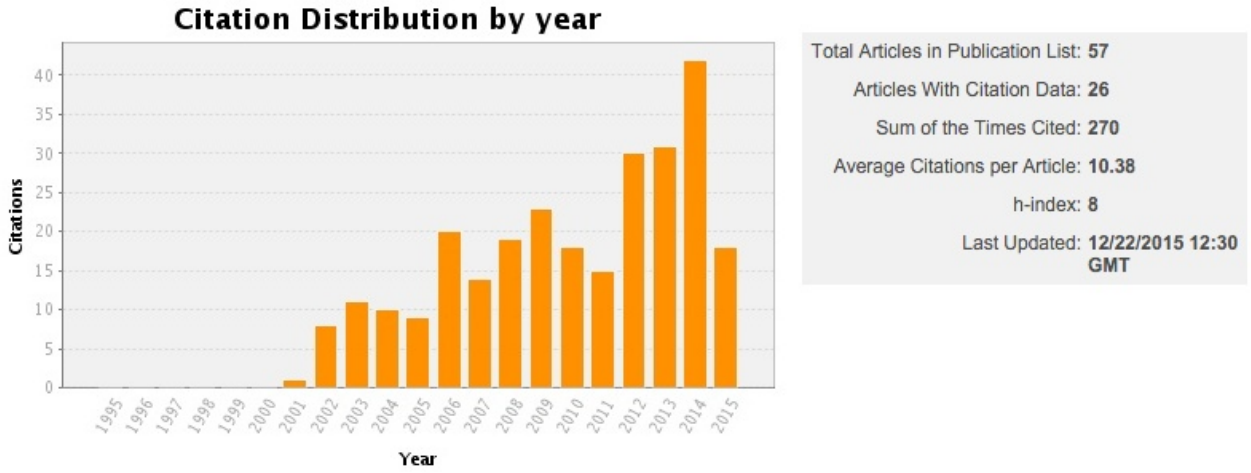

Figure 2: ResearcherID (Web of Science) citation metrics as of December 22nd 2015

Table 1: Most significant 10 publications, including 4 recent publications and 2 publications co-authored with my PhD advisor.

	Selection of 10 significant & recent publications[1] *	# cited [2]	Journal impact[3]
J23	Traonmilin, Y., Ladjal, S., & Almansa, A. (2015). **Robust Multi-image Processing with Optimal Sparse Regularization**. *Journal of Mathematical Imaging and Vision*	2	27
J22	Newson, A., Almansa, A., Fradet, M., Gousseau, Y., & Pérez, P. (2014). **Video Inpainting of Complex Scenes**. *SIAM Journal on Imaging Sciences*.	17	36
C32	Guillemot, T., Almansa, A., & Boubekeur, T. (2014). **Covariance Trees for 2D and 3D Processing**. In *CVPR 2014*, [acceptance rate 5.76%]	-	118
C33	Aguerrebere, C., Almansa, A., Gousseau, Y., Delon, J., & Muse, P. (2014). **Single shot high dynamic range imaging using piecewise linear estimators**. In *(ICCP 2014)*	4	12
J16*	Delbracio, M, Musé, P, Almansa, A, & Morel, JM (2011). **The Non-parametric Sub-pixel Local Point Spread Function Estimation Is a Well Posed Problem**. *IJCV*.	11	58
J14*	Sabater, N., Almansa, A., & Morel, J.-M. (2011). **Meaningful Matches in Stereovision**. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, *34*(5)	26	104
J10	Almansa, A., Ballester, C., Caselles, V., & Haro, G. (2007). **A TV Based Restoration Model with Local Constraints.** *Journal of Scientific Computing*.	34	27
J7	Almansa, A., Durand, S., & Rougé, B. (2004). **Measuring and Improving Image Resolution by Adaptation of the Reciprocal Cell**. *J. Math. Imaging & Vision*, *21*(3).	28	27
J6	Almansa, A., Desolneux, A., & Vamech, S. (2003). **Vanishing point detection without any a priori information**. *IEEE Trans. Pattern Anal. & Machine Intelligence*, *25*(4).	144	104
J4	Almansa, A., & Lindeberg, T. (2000). **Fingerprint enhancement by shape adaptation of scale-space operators with automatic scale selection**. *IEEE Trans. Image Proc*.	140	75

[1] Publications co-authored with my PhD supervisor are marked with *. They are all the result of a post PhD collaboration (student co-supervision).
[2] Citation numbers were obtained from Google Scholar on Dec 27th 2015 and corrected to **exclude self-citations** using CIDS 3.0. Details available at http://perso.enst.fr/~almansa/publications/
[3] The h5-index measures the impact factor of a journal or conference.
https://scholar.google.fr/intl/en/scholar/metrics.html - metrics

Table 2: Selection of 5 recent publications

Ref	5 Publication récentes sélectionnées	# cited (Web of Science)	# cited (Google scholar)	Journal h5 index
C31	Guillemot, T., Almansa, A., & Boubekeur, T. (2014). **Covariance Trees for 2D and 3D Processing**. In *(CVPR 2014)* doi:10.1109/CVPR.2014.78	-	-	118
J21	Newson, A., Almansa, A., Fradet, M., Gousseau, Y., & Pérez, P. (2014). **Video Inpainting of Complex Scenes**. *SIAM Journal on Imaging Sciences*.	4	18	36
J22	Traonmilin, Y., Ladjal, S., & Almansa, A. (2014). **Robust Multi-image Processing with Optimal Sparse Regularization**. *Journal of Mathematical Imaging and Vision*, doi:10.1007/s10851-014-0532-1	-	4	27
C32	Aguerrebere, C., Almansa, A., Gousseau, Y., Delon, J., & Muse, P. (2014). **Single shot high dynamic range imaging using piecewise linear estimators**. In *(ICCP 2014)* doi:10.1109/ICCPHOT.2014.6831807	-	5	12
J16	Delbracio, M., Musé, P., Almansa, A., & Morel, J.-M. (2012). **The Non-parametric Sub-pixel Local Point Spread Function Estimation Is a Well Posed Problem**. *International Journal of Computer Vision*, doi:10.1007/s11263-011-0460-0	7	19	58