

# Javier Vazquez-Corral

Associate Professor. Computational Color

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## OVERVIEW

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I am a researcher in computational color with extensive teaching experience in many aspects of mathematics and computer science. I have developed novel approaches to solve different problems ranging from color constancy to color stabilization, color characterization, color gamut mapping, high dynamic range imaging, image dehazing, image denoising, and vision color properties such as unique hue prediction and color naming. I have published 23 articles in top-ranked journals (21 of them as either first or second author), including IEEE-TPAMI, IEEE-TIP, and SIAM-SIIMS. I have two European Patent applications, and research experience in cutting-edge research labs in Spain, UK, Switzerland, and Canada, working in high-profile research projects. I have extensive experience in teaching in both undergraduate and master courses in Spain and the UK, with more of 800 hours of teaching already performed.

## INDICATORS

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### JCR journals:

- 23 publications in JCR journals: 13 in Q1 journals (6 in D1: 1 IEEE-TPAMI, 4 IEEE-TIP, 1 SIAM-SIIMS), 7 in Q2. 11 as first author, 9 as second author.
- Average number of authors per paper: 3.43.

### Conferences:

- 30 international conference publications.
- 2 in Class-1 (excellent-top notch), 4 in Class-2 (very good) of the GII-GRIN-SCIE ranking. They include 2 CVPR (Core A\*, ranked as #5 publication for all topics by Google Metrics).

### Scientific research impact:

- **Google Scholar:** 730 citations, h-index=15, i10-index=20. Average 110 citations/year for the last 5 years, increasing to 137 citations/year for the last 3 years.
- **Scopus:** 403 citations, h-index=11, i10-index=12. Average 64 citations/year for the last 5 years, increasing to 84 citations/year for the last 3 years.
- **Web of Science:** 304 citations, h-index=10, i10-index=11. Average 44 citations/year for the last 5 years, increasing to 57 citations/year for the last 3 years.

### Direction of students:

- 3 PhD Theses co-supervised (1 at Univ. East Anglia (UEA), pending minors).

### Funding secured:

- Retos-JIN Project -2019 call- (Acceptance rate: < 9%). In-camera Visibility Restoration. Sole Principal Investigator. 181,500 €.
- Juan de la Cierva-Incorporación Grant -2014 call- (Acceptance rate: < 14%). 64,000 €.
- Competitive Mobility Scholarships worth 10,500 €.

### Technology Transfer:

- 2 European Patents filed.

## EDUCATION

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|   |      |
|---|------|
| <b>PhD Computer Science</b>   | 2011 |
| <i>Universitat Autònoma de Barcelona</i>  |      |
| “Colour Constancy in natural images through Colour Naming and Sensor Sharpening”. |      |
| Thesis advisors: M. Vanrell (UAB) / G.D. Finlayson (UEA).                         |      |
| Grade: Cum Laude.   |      |
| European Mention.   |      |
| <b>MSc Advanced Computer Science</b>  | 2007 |
| <i>Universitat Autònoma de Barcelona</i>  |      |
| <b>BSc+MSc (Licenciatura) Mathematics</b>   | 2006 |
| <i>Universitat de Barcelona</i>   |      |

## APPOINTMENTS

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|--|-----------------------|
| <b>Associate Professor</b>                       | Mar. 2021-            |
| <i>Universitat Autònoma de Barcelona, Spain</i>  |                       |
| <b>Researcher</b>                                | Mar. 2021-            |
| <i>Computer Vision Center, Spain</i>             |                       |
| <b>Honorary Lecturer</b>                         | Jul. 2020-            |
| <i>University of East Anglia, United Kingdom</i> |                       |
| <b>Researcher</b>                                | Oct 2020- Mar. 2021   |
| <i>Universitat Pompeu Fabra, Spain</i>           |                       |
| <b>Postdoctoral researcher</b>                   | Jun. 2019-Set 2020    |
| <i>Universitat Pompeu Fabra, Spain</i>           |                       |
| <b>Senior Research Associate</b>                 | Aug 2018-May 2019     |
| <i>University of East Anglia, United Kingdom</i> |                       |
| <b>Juan de la Cierva-Incorporación Fellow</b>    | Sept. 2016-Aug 2018   |
| <i>Universitat Pompeu Fabra, Spain</i>           |                       |
| <b>Visiting lecturer</b>                         | Sept. 2014-Sept. 2016 |
| <i>Universitat Pompeu Fabra, Spain</i>           |                       |
| <b>Postdoctoral researcher</b>                   | Oct. 2012-Sept. 2014  |
| <i>Universitat Pompeu Fabra, Spain</i>           |                       |
| <b>Postdoctoral researcher</b>                   | Sept. 2011-Sept. 2012 |
| <i>Universitat Autònoma de Barcelona, Spain</i>  |                       |
| <b>Postdoctoral researcher</b>                   | Jul. 2011-Sept. 2011  |
| <i>EPFL, Switzerland</i>                         |                       |
| <b>Associate tutor</b>                           | Jan. 2011-Apr. 2011   |
| <i>University of East Anglia, United Kingdom</i> |                       |

**Associate lecturer** Sept. 2008-Sept. 2010  
*Universitat Autònoma de Barcelona, Spain*

**PhD Student fellow** Sept. 2006-Sept. 2008  
*Universitat Autònoma de Barcelona, Spain*

## **RESEARCH STAYS**

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**Visiting Postdoctoral researcher** May 2011-Jun. 2011  
*Simon Fraser University, Canada*

**Visiting Student** Feb. 2010-May 2010  
*University of East Anglia, United Kingdom*

**Visiting Student** Apr. 2009-Jul. 2009  
*University of East Anglia, United Kingdom*

## **LANGUAGES**

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Spanish (Native), Catalan (Native), **English** (Fluent), **French** (Intermediate).

## **ACCREDITATIONS**

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- Acreditación de Titular de Universidad (Tenured Associate Professor level), ANECA. December 2020.
- Acreditación de profesor contratado doctor (Associate Professor level), ANECA. April 2020.
- Acreditación de profesor ayudante doctor (Assistant Professor level), ANECA. April 2020.
- Acreditació de recerca (Associate Professor level), AQU-Generalitat de Catalunya. February 2016.
- Acreditació de professor lector (Assistant Professor level), AQU-Generalitat de Catalunya. September 2012.

## **PATENTS**

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2. M. Bertalmío, A. Gómez-Villa, A. Martín y **J. Vazquez-Corral** “Computer implemented method for processing structured data”, EP20382676.3, Patent filed, 2020.
1. S.W. Zamir, **J. Vazquez-Corral**, and M. Bertalmío, “Method and system for color gamut mapping”, EP17382462.4, Patent filed, 2017.

## **INVITED TALKS**

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- 2020: Huawei workshop on Accurate Color Reproduction, Online (Russia-based).
- 2019: Huawei workshop on Color and Multispectral Imaging, Belarus; Spectral Edge, Ltd, United Kingdom.
- 2018: Cortexica Ltd, United Kingdom; Computer Vision Center, Spain.

- 2017: Linköping University, Sweden; Universidad Politécnica de Madrid, Spain; Universidad Rey Juan Carlos, Spain.
- 2015: University of East Anglia, United Kingdom; Computer Vision Center, Spain.
- 2013: Universitat Pompeu Fabra, Spain.
- 2012: University of Newcastle, United Kingdom; Leeds University, United Kingdom; University of Bradford, United Kingdom; Al Balqa University, Jordan.

## **THESES SUPERVISED**

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3. Fufu Fang – PhD-Co-supervised with G.D. Finlayson and M. Mackiewicz; 23/10/2020 (pending minors); “Integrating Colour Correction Algorithms”, *University of East Anglia*.
2. Raquel Gil Rodríguez – PhD-Co-supervised with M. Bertalmío; November 2018; “Digital camera colour processing pipeline for high dynamic range imaging and colour stabilisation for cinema”, *Universitat Pompeu Fabra*.
1. Syed Waqas Zamir – PhD-Co-supervised with M. Bertalmío; May 2017; “Perceptually-Inspired Gamut Mapping for Display and Projection Technologies”, *Universitat Pompeu Fabra*.

## **GRANTS**

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- Juan de la Cierva-Incorporación, Ministerio de Economía y Hacienda (MINECO), Gobierno de España, 64,000 €, 2015.
- Beques per a estades de recerca fora de Catalunya (BE), Generalitat de Catalunya (Marie Curie Actions), 6,200 €, 2010.
- Becas de movilidad para obtener la mención europea del título de doctor TME2008-01275, MICINN, Gobierno de España, 4,200 €, 2009.
- Grant for pursuing doctoral studies, Universitat Autònoma de Barcelona , -, 2006-2008.

## **AWARDS**

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- Honorary Lecturer, University of East Anglia, -, 2020-2023.
- Best technology transfer project for the patent: “Method and system for color gamut mapping” (with S. W. Zamir and M. Bertalmío), Universitat Pompeu Fabra, 10.000 €, 2017.
- Finalists JoInnovo 2020 (Livercolor project, with I. Gómez-Gavara, I. Bilbao and G. Piella), Vall d’Hebron Hospital, -, 2020.
- Selected for the Start-Ups pre-accelerator (Livercolor project, with I. Gómez-Gavara, I. Bilbao and G. Piella) , Barcelona Activa, -, 2020.

## COMMITTEES AND ORGANIZATION ACTIVITIES

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- **Examiner on 5 PhD Thesis and 13 MSc Thesis.**
  - **Carola Figueroa**, PhD Thesis, Universitat Autònoma de Barcelona (08/03/2021).
  - **Lichao Zhang**, PhD Thesis, Universitat Autònoma de Barcelona (19/11/2019).
  - **Oriol Martínez**, PhD Thesis, Universitat Pompeu Fabra (04/02/2016).
  - **Marc Serra**, PhD Thesis, Universitat Autònoma de Barcelona (10/09/2015).
  - **Rao Anwer Muhammad**, PhD Thesis, Universitat Autònoma de Barcelona (16/07/2013).

*General chair in:*

- **London Imaging Meeting**, Online (Originally London, United Kingdom) (09/2020).

*Member of the organizing committee in:*

- **Color and Imaging Conference**, Online (Originally Chiba, Japan) (11/2020).
- **7th Annual catalan meeting in Computer Vision**, Online (09/2020).
- **Color and Imaging Conference**, Paris, France (10/2019).
- **6th Annual catalan meeting in Computer Vision**, Barcelona, Spain (09/2019).
- **Color and Imaging Conference**, Vancouver, Canada (11/2018).
- **SIAM-IS mini-symposium on “Mathematical techniques for bad visibility restoration”**, Bologna, Italy (06/2018).
- **Color and Photometry in Computer Vision Workshop (in conjunction with ECCV)**, Firenze, Italy (10/2012).

*Member of the local committee in:*

- **Congrès Català d’Intel·ligència Artificial**. Local committee (10/2016).
- **3rd Annual catalan meeting in Computer Vision**. Local organizer (09/2016).
- **2nd Annual catalan meeting in Computer Vision**. Local organizer (09/2015).
- **1st Annual catalan meeting in computer Vision**. Local organizer (09/2014).
- **CVC Workshop on Research and development**. Organizer (10/2011).
- **New Trends in Pattern Recognition for Motion Analysis (PRMA’08)**. Local committee (17/2008).

*Reviewer for:*

- Journals: IEEE-TPAMI, IJCV, SIAM-SIIMS, IEEE-TIP, IEEE-TCSVT, IEEE-TSP, Signal Processing, ISPRS P&RS, Optics Express, IEEE-TDSC, IEEE-SPL, CVIU, PRL, SP-IC, Plos One, JOSA-A, Applied Optics, IEEE Access, DSP, CRA, Sensors, Information, OE (SPIE), JARS (SPIE), JEI, Mult. Syst., EURASIP-JIVP, JIST.
- Conferences: CVPR, ICCV, ECCV, AAAI, BMVC, WACV, ACCV, CVM, CIC, VISAPP, WCPCV.

## **PARTICIPATION IN RESEARCH PROJECTS**

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### **As Principal Investigator:**

- In-camera Visibility Restoration, **PI:** Javier Vazquez-Corral, **Start/End date:** 10/2020-09/2023, **Budget:** 181.500€, **Financed by:** Spanish Ministry of Science.

### **As Researcher:**

- LiverColor: Algoritmo de cuantificación de esteatosis hepática utilizando machine learning y procesamiento de imágenes (Hepatic steatosis quantification algorithm using machine learning and image processing) , **PI:** Imma Gomez-Gavara **Start/End date:** 08/2020-07/2022, **Budget:** 110,000€, **Financed by:** Fundació Mútua Madrileña.
- Gammavision: Gamut mapping technology based on vision models, **PI:** Marcelo Bertalmío **Start-End date:** 08/2018-01/2020, **Budget:** 150,000€, **Financed by:** European Research Council. Proof of Concept Grant.
- Gamut mapping for cinema, **PI:** Marcelo Bertalmío **Start-End date:** 04/2018-12/2018, **Budget:** 30,000€, **Financed by:** UPF Innovalora Project, ref: INNOV1715-1.
- SAUCE: Smart Asset re-Use in Creative Environments, **PI:** Marcelo Bertalmío, Josep Blat **Start-End date:** 01/2018-12/2020, **Budget:** 4,000,000€, **Financed by:** European Research Council: Horizon 2020, ref: 780470 .
- HDR4EU: Enabling End-to-End HDR Ecosystem, **PI:** Marcelo Bertalmío, Josep Blat, **Start-End date:** 07/2017-06/2020, **Budget:** 2,300,000€, **Financed by:** European Research Council: Horizon 2020, ref: 761544.
- Modelos de visión de contraste y color para cine, **PI:** Marcelo Bertalmío, **Start-End date:** 01/2016-12/2018, **Budget:** 64,493€, **Financed by:** Spanish Ministry of Science.
- Procesamiento de imágenes para realce de fotografía cinematográfica, **PI:** Marcelo Bertalmío, **Start-End date:** 01/2013-12/2015, **Budget:** 103,697€, **Financed by:** Spanish Ministry of Science.
- IP4EC: Image Processing for Enhanced Cinematography, **PI:** Marcelo Bertalmío, **Start-End date:** 10/2012-09/2017, **Budget:** 1,500,000 €, **Financed by:** European Research Council. Starting Grant 306337.
- Perceptual models for cinematography, **PI:** Marcelo Bertalmío, **Start-End date:** 10/2012-05/2014, **Budget:** 75,000€, **Financed by:** Spanish Ministry of Science.
- BioColTex: Introducción de información de color y mecanismos de atención a modelos bio-inspirados de visión por computador, **PI:** Maria Vanrell, **Start-End date:** 01/2011-12/2013, **Budget:** 123,000€, **Financed by:** Spanish Ministry of Science.
- Multimodal Interaction in Pattern Recognition and Artificial Vision, **PI:** Enrique Vidal, **Start-End date:** 01/2007-12/2011, **Budget:** 397,700€, **Financed by:** Spanish Ministry of Science.
- CREATE: Colour Research for European Advanced Technology Employment, **PI:** Carinna Parraman, **Start-End date:** 01/2007-12/2010 **Budget:** 532,363 €, **Financed by:** European Commission Marie Curie Actions FP6 mobility- Conference and Training Courses 45963.
- Colour Vision Content Management: modeling spatial perception and semantics, **PI:** Maria Vanrell, **Start-End date:** 01/2008-12/2010, **Budget:** 105,000€, **Financed by:** Spanish Ministry of Science.

## MISCELLANEOUS

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- My research has been showcased in more than 10 newspapers, including Ara, El Periódico, La Vanguardia, El País, La Razón.
- Radio interview at BTV Ràdio explaining the chances of winning the Christmas lottery (in Catalan) <http://www.btv.cat/btvnoticies/2015/12/22/javier-vazquez-matematic-la-loteria-es-limpost-dels-que-no-saben-matematices/>
- TV interview at El Punt Avui TV explaining what is Computer Vision (in Catalan) [http://www.elpuntavui.tv/video.html?view=video&video\\_id=142291625](http://www.elpuntavui.tv/video.html?view=video&video_id=142291625).
- 7 talks to different Schools aiming at motivating teenagers to study STEM subjects.

## TEACHING

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### Post-graduate

*Joint Master: Universitat Autònoma de Barcelona, Universitat Oberta de Catalunya, Universitat Politècnica de Catalunya, Universitat Pompeu Fabra*

- Human Vision System and Perception:  
**2020-2021:** 2 hours.  
**2019-2020:** 2 hours.
- Image formation and color representation:  
**2020-2021:** 2 hours.  
**2019-2020:** 2 hours.

*Universitat Autònoma de Barcelona, Escola d'Enginyeria:*

- Photometric invariance (master):  
**2012-2013:** 2 hours.  
**2011-2012:** 2 hours.

*University of East Anglia, Computer Sciences School:*

- Computer Vision for Computational Photography (both undergraduate and masters):  
**2010-2011:** 25 hours.

### Undergraduate

*Universitat Pompeu Fabra, Escola Superior Politècnica:*

- Linear Algebra:  
**2020-2021:** Theory: 28 hours. Practices: 12 hours.  
**2017-2018:** Theory: 28 hours. Coordination of the subject.  
**2016-2017:** Theory: 28 hours. Practices: 14 hours. Seminars: 12 hours.
- Image and video compression:  
**2017-2018:** Theory: 18 hours. Coordination of the subject.  
**2016-2017:** Theory: 18 hours. Coordination of the subject.  
**2015-2016:** Theory: 18 hours. Seminars: 8 hours. Coordination of the subject.

- Linear Algebra and Discrete Mathematics:  
2015-2016: Theory: 36 hours.  
2014-2015: Theory: 36 hours. Practices: 24 hours. Seminars: 16 hours.
- Mathematical Biomodelling:  
2015-2016: Seminars: 8 hours.
- Differential Equations:  
2014-2015: Seminars: 20 hours. Labs: 16 hours.

*Universitat Autònoma de Barcelona, Escola d'Enginyeria:*

- Artificial Intelligence:  
2011-2012: Seminars and Labs: 52 hours.
- System Planning:  
2011-2012: Labs: 40 hours.
- Artificial Vision:  
2011-2012: Seminars and labs: 15 hours.
- Programming languages and algorithms:  
2009-2010: Theory: 45 hours. Labs: 112,5 hours.  
2008-2009: Labs: 125 hours.
- Data structure:  
2007-2008: Labs: 60 hours.  
2006-2007: Labs: 60 hours.

## **TEACHING PROJECTS AND TEACHING TRAINING**

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*Participation in teaching projects:*

- Més enllà de la simple bibliografia: Preparació d'uns apunts interactius d'Àlgebra Lineal. **PI:** Vanesa Daza, **Budget:** 5.000 €, **Financed by:** PlaClik 2018-2019, Universitat Pompeu Fabra.
- MATEscape: Ludificación aplicada para la mejora del aprendizaje. **PI:** Luis Moris, **Budget:** 1.600 €, **Financed by:** PlaClik 2018-2019, Universitat Pompeu Fabra.
- Redefinint la presencialitat a les assignatures de matemàtiques de la mà de Wiris i Piazza. **PI:** Vanesa Daza, **Budget:** 4.500 €, **Financed by:** PlaClik 2016-2017, Universitat Pompeu Fabra.

*Teaching training:*

- FDES Program (Formació Docent en Educació Superior) -7 ECTS credits-, Universitat Autònoma de Barcelona 2010.
- Certificat d'Aptitud Pedagògica, Universitat de Barcelona, 2006.

*Seminars attended:*

- 3rd Morning Symposium on Teaching Innovation and Quality at ESUP/DTIC, UCA ETIC, 2016
- 5th Morning Symposium on Teaching Innovation and Quality at ESUP/DTIC, UCA ETIC, 2018



## PEER-REVIEWED JOURNAL PAPERS

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23. T. Canham, **J. Vazquez-Corral**, E. Mathieu and M. Bertalmío, “Matching visual induction effects on screens of different size”, *Journal of Vision* **Accepted**, , 2021 (IF: 2.145, Q2: 27/60).
22. S.W. Zamir, **J. Vazquez-Corral**, y M. Bertalmío, “Vision models for Wide Gamut Imaging in cinema”, *IEEE Transactions on Pattern Analysis and Machine Intelligence* , DOI: 10.1109/TPAMI.2019.2938499, 2021 (IF: 17.861, Q1: 1/136, D1).
21. M. Bertalmío, A. Gomez, A. Martin, **J. Vazquez-Corral**, D. Kane and J. Malo, “Evidence for the intrinsically nonlinear nature of receptive fields in vision”, *Scientific Reports* **10**, 16277, 2020 (IF: 3.998, Q1: 17/71).
20. A. Gomez-Villa, A. Martin, **J. Vazquez-Corral**, M. Bertalmío, y J. Malo, “Color Illusions Also Deceive CNNs for Low-Level Vision Tasks: Analysis and Implications”, *Vision research* **176**, 156-174, 2020 (IF: 2.610, Q2: 19/60).
19. **J. Vazquez-Corral**, G. Finlayson y M. Bertalmío, “Physical-based optimization for non-physical image dehazing methods”, *Optics Express* **28(7)**, 9327-9339, 2020 (IF: 3.669, Q1: 19/97).
18. R. Gil Rodríguez, **J. Vazquez-Corral**, y M. Bertalmío, “Color matching unknown non-linear encoding images”, *IEEE Transaction on Image Processing* **29**, 4435-4444, 2020 (IF: 9.340, Q1: 11/266, D1).
17. **J. Vazquez-Corral**, A. Galdran, P. Cyriac, y M. Bertalmío, “A fast image dehazing method that does not introduce color artifacts”, *Journal of Real-Time Image Processing* , 17(3), 607-622, 2020 (IF: 1.968, Q3: 73/136).
16. R. Gil Rodríguez, **J. Vazquez-Corral**, y M. Bertalmío, “Issues with common assumptions about the camera pipeline, and their impact in HDR imaging from multiple exposures”, *SIAM Journal on Imaging Sciences* **12(4)**, 1627–1642, 2019 (IF: 2.313, Q1: 28/260).
15. **J. Vazquez-Corral**, and M. Bertalmío, “Spatial gamut mapping among non-inclusive gamuts”, *Journal of Visual Communication and Image Representation* **54**, 204-212, 2018 (IF: 2.259, Q2: 36/107).
14. **J. Vazquez-Corral**, and M. Bertalmío, “Angular-based pre-processing for image denoising”, *IEEE Signal Processing Letters* **25:2**, 219-223, 2018 (IF: 3.268, Q2: 79/265).
13. S.W. Zamir, **J. Vazquez-Corral**, and M. Bertalmío, “Gamut extension for cinema”, *IEEE Trans. on Image Processing* **26:4**, 1596-1606, 2017 (IF: 5.072, Q1: 11/132, D1).
12. I. Rafegas, **J. Vazquez-Corral**, R. Benavente, M. Vanrell and S. Alvarez, “Enhancing spatio-chromatic representation with more-than-three color coding for image description”, *Journal of The Optical Society of America-A* **34:5**, 827-837, 2017 (IF: 1.566, Q3: 53/94).
11. A. Galdran, **J. Vazquez-Corral**, D. Pardo, and M. Bertalmío, “Fusion-based variational image dehazing”, *IEEE Signal Processing Letters* **24:2**, 151-155, 2017 (IF: 2.813, Q2: 76/260).
10. A. Galdran, **J. Vazquez-Corral**, D. Pardo, and M. Bertalmío, “Enhanced Variational Image Dehazing”, *SIAM Journal on Imaging Sciences* **8:3**, 1519–1546, 2015 (IF: 2.687, Q1: 3/106, D1).
9. **J. Vazquez-Corral** and M. Bertalmío, “Simultaneous blind gamma estimation”, *IEEE Signal Processing Letters* **22:9**, 1316-1320, 2015 (IF: 1.661, Q2: 95/257).
8. **J. Vazquez-Corral**, D. Connah and M. Bertalmío, “Perceptual Color Characterization of Cameras”, *Sensors* **14(12)**, 23205-29, 2014 (IF: 2.245, Q1: 10/56).

7. **J. Vazquez-Corral** and M. Bertalmío, “Color Stabilization Along Time and Across Shots of the Same Scene, for One or Several Cameras of Unknown Specifications”, *IEEE Trans. on Image Processing* **23:10**, 4586-4575, 2014 (IF: 3.625, Q1: 14/249, D1).
6. S.W. Zamir, **J. Vazquez-Corral**, and M. Bertalmío, “Gamut mapping in cinematography through Perceptual-based contrast modification”, *IEEE Journal on Selected topics in Signal Processing* **8:3**, 490-502, 2014 (IF: 2.373, Q1: 42/249).
5. **J. Vazquez-Corral** and M. Bertalmío, “Spectral sharpening of color sensors: diagonal color constancy and beyond”, *Sensors* **14:3**, 3965-3985, 2014 (IF: 2.245, Q1: 10/56).
4. **J. Vazquez-Corral**, J.K. O’Regan, M. Vanrell, and G. D. Finlayson,, “A new spectrally sharpened sensor basis to predict color naming, unique hues, and hue cancellation”, *Journal of Vision* **12:6**, 7, 2012 (IF: 2.479, Q1: 13/59).
3. G. D. Finlayson, **J. Vazquez-Corral**, S. Susstrunk, and M. Vanrell, “Spectral sharpening by spherical sampling”, *Journal of the Optical Society of America -A (JOSA A)* **29:7**, 1199-1210, 2012 (IF: 1.665, Q2: 30/80).
2. **J. Vazquez-Corral**, M. Vanrell, R. Baldrich, and F. Tous, “Color constancy by category correlation”, *IEEE Trans. on Image Processing* **21:4**, 1997-2007, 2012 (IF: 3.199, Q1: 17/243, D1).
1. **J. Vazquez-Corral**, C. A. Parraga, M. Vanrell, and R. Baldrich, “Color constancy algorithms: Psychophysical evaluation in a new dataset”, *Journal of Imaging Science and Technology* **53:3**, 31105-1, 2009 (IF: 0.391, Q4: 11/13).

## **SUBMITTED JOURNAL PAPERS AND WORKING PAPERS**

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- A. Gomez-Villa, A. Martín, **J. Vazquez-Corral**, J. Malo and M. Bertalmío, “On the synthesis of visual illusions using deep generative models”, *Submitted to Journal of Vision (early version at: <https://arxiv.org/abs/1911.09599>)*, 2021.

## **INTERNATIONAL CONFERENCES**

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### **Main International Conferences**

30. O. Vu Thanh, T. Canham, **J. Vazquez-Corral**, R. Gil Rodríguez and M. Bertalmío, “Color stabilization for multi-camera light-field imaging”, *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, 2020
29. J. Trottnow, S. Spielmann, T. Herfet, T. Lange, K. Chelli, M. Solony, P. Smrz, P. Zemcik, W. Aenchbacher, M. Grogan, M. Alain, A. Smolic, T. Canham, O. Vu-Thanh, **J. Vazquez-Corral** and M. Bertalmío, “The Potential of Light Fields in Media Productions”, *SIGGRAPH Asia Technical Briefs*, 2019
28. A. Gomez-Villa, A.Martin, **J. Vazquez-Corral** and M. Bertalmío, “Convolutional Neural Networks can be deceived by visual illusions”, *Computer Vision and Pattern Recognition (CVPR)*, 2019
27. A. Galdran, P. Costa, **J. Vazquez-Corral**, and A. Campilho, “Weakly supervised fog detection”, *IEEE International Conference on Image Processing*, 2018.
26. A. Galdran, A. Alvarez, A. Bria, **J. Vazquez-Corral**, and M. Bertalmío, “On the Duality between Retinex and Image Dehazing”, *Computer Vision and Pattern Recognition (CVPR)*, 2018.

25. C. Ancuti -et al- (**My author order: 57/65**), “NTIRE 2018 Challenge on Image Dehazing: Methods and Results”, Computer Vision and Pattern Recognition Workshops (CVPRW), 2018.
24. **J. Vazquez-Corral** and M. Bertalmío, “Log-encoding estimation for color stabilization of cinematic footage”, IEEE International Conference on Image Processing, 2016.
23. R. Gil Rodríguez, **J. Vazquez-Corral**, and M. Bertalmío, “The Intrinsic Error of Exposure Fusion for HDR Imaging, and a Way to Reduce it”, British Machine Vision Conference, 2015.
22. A. Galdran, **J. Vazquez-Corral**, D. Pardo, and M. Bertalmío, “A variational Framework for Single Image Dehazing”, European Conference on Computer Vision Workshops (ECCVW), 2014.
21. S.W. Zamir, **J. Vazquez-Corral**, and M. Bertalmío, “Gamut mapping through Perceptually-Based Contrast Reduction”, Pacific Rim Symposium in Image and Video Technology (PSIVT), 2013.

#### Other international conferences

20. Y. Sugito, T. Canham, **J. Vazquez-Corral** y M. Bertalmío, “ A Benchmark of Objective Quality Metrics for HLG-Based HDR/WCG Image Coding”, SMPTE Annual Conference, 2020
19. **J. Vazquez-Corral** and G. Finlayson, “Coupled Retinex”, Color and Imaging Conference, 2019
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