

Javier Vazquez-Corral

Associate Professor
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and
Senior Researcher
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OVERVIEW

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 26 articles in top-ranked journals (23 of them as either first or second author), including IEEE-TPAMI, IEEE-TIP, and SIAM-SIIMS. I have an European Patent granted -and a second application in process-, and research experience in cutting-edge research labs in Spain, UK, and Switzerland, 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 1000 hours of teaching already performed.

EDUCATION

PhD Computer Science	2011
<i>Universitat Autònoma de Barcelona, Barcelona, Spain</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.	
MSc Advanced Computer Science	2007
<i>Universitat Autònoma de Barcelona, Barcelona, Spain</i>	
BSc+MSc (Spanish Licenciatura) Mathematics	2006
<i>Universitat de Barcelona, Barcelona, Spain</i>	

APPOINTMENTS

Associate Professor	Mar. 2021-
<i>Universitat Autònoma de Barcelona, Barcelona, Spain</i>	
<ul style="list-style-type: none">• Coordinate university subjects, preparing exams, and marking grades and reports.• Teach university subjects to undergraduate and graduate students in my area of specialization –Computer Science and Artificial Intelligence-, preparing all the necessary materials to do so.• Lead the research of graduate students advising them on research matters.• Conduct top-notch research and publish it in top journal publications and conferences.• Participate and serve on faculty committees, and perform administrative duties as requested by the head of school.	

- Researcher** Jul. 2021-
Computer Vision Center, Barcelona, Spain
- Affiliated Researcher. Research in Computational Color.
- Honorary Lecturer** Jul. 2020-
University of East Anglia, Norwich, United Kingdom
- Honorary appointment given for ongoing collaborations with the institution.
- Post-doctoral Researcher "Jóvenes Investigadores"** Oct 2020- Mar. 2021
Universitat Pompeu Fabra, Barcelona, Spain
- Lead the project "ICVIR: In-camera Visibility Restoration".
 - Perform research in image visibility restoration, more in detail, in the aforementioned project, and publish it in top journal publications and conferences.
 - Teach university subjects to undergraduate and graduate students, preparing all the necessary materials to do so. In detail, I taught Linear Algebra.
 - Participate and serve on faculty committees, and perform administrative duties as requested by the head of school.
- Postdoctoral researcher** Jun. 2019-Set 2020
Universitat Pompeu Fabra, Barcelona, Spain
- Perform research in computational color for HDR imaging, more in detail in the projects "SAUCE: Smart Asset re-Use in Creative Environments", "HDR4EU: Enabling End-to-End HDR Ecosystem" and publish it in top journal publications and conferences.
 - Participate and serve on faculty committees, and perform administrative duties as requested by the head of school.
- Senior Research Associate** Aug 2018-May 2019
University of East Anglia, Norwich, United Kingdom
- Perform research in computational color, more in detail in the project "Colour space homography", and publish it in top journal publications and conferences.
- Post-doctoral Researcher "Juan de la Cierva-Incorporación"** Sept. 2016-Aug 2018
Universitat Pompeu Fabra, Barcelona, Spain
- Perform Research in computational color and image restoration, and publish it in top journal publications and conferences.
 - Teach university subjects to undergraduate and graduate students, preparing all the necessary materials to do so. In detail, I taught Linear Algebra and Image and Video Coding.
 - Participate and serve on faculty committees, and perform administrative duties as requested by the head of school.
- Visiting lecturer** Sept. 2014-Sept. 2016
Universitat Pompeu Fabra, Barcelona, Spain
- Perform Research in computational color –gamut mapping and color stabilization-, more in detail, in the project: "IP4EC: Image Processing for Enhanced Cinematography" and publish it in top journal publications and conferences.
 - Teach university subjects to undergraduate and graduate students, preparing all the necessary materials to do so. In detail, I taught Linear Algebra, Image and Video Coding, and Differential Equations.

- Participate and serve on faculty committees, and perform administrative duties as requested by the head of school.

Postdoctoral researcher

Oct. 2012-Sept. 2014

Universitat Pompeu Fabra, Barcelona, Spain

- Perform Research in computational color –gamut mapping and color stabilization-, more in detail, in the project: “IP4EC: Image Processing for Enhanced Cinematography” and publish it in top journal publications and conferences.
- Participate and serve on faculty committees, and perform administrative duties as requested by the head of school.

Postdoctoral researcher

Sept. 2011-Sept. 2012

Universitat Autònoma de Barcelona, Barcelona, Spain

- Teach university subjects to undergraduate and graduate students in his area of specialization –Computer Science and Artificial Intelligence-, preparing all the necessary materials to do so. In detail, I taught Artificial Intelligence, System Planning, and Artificial Vision.
- Conduct research and publish it in top journal publications and conferences in the topic of Color Constancy.
- Participate and serve on faculty committees, and perform administrative duties as requested by the head of school.

Postdoctoral researcher

Jul. 2011-Sept. 2011

EPFL, Lausanne, Switzerland

- Conduct research in spectral sharpening methods for color imaging.

Associate tutor

Jan. 2011-Apr. 2011

University of East Anglia, Norwich, United Kingdom

- Conduct research in spectral sharpening methods for color imaging
- Teach Computer Vision for Computational Photography.

Associate lecturer

Sept. 2008-Sept. 2010

Universitat Autònoma de Barcelona, Barcelona, Spain

- Teach university subjects to undergraduate students in his area of specialization –Computer Science and Artificial Intelligence-, preparing all the necessary materials to do so. In detail, I taught Programming Languages and Algorithms.
- Conduct research and publish it in top journal publications and conferences in the topics of Computational Color Constancy.
- Participate and serve on faculty committees, and perform administrative duties as requested by the head of school.

PhD Student fellow

Sept. 2006-Sept. 2008

Universitat Autònoma de Barcelona, Barcelona, Spain

- Teach university subjects to undergraduate students in his area of specialization –Computer Science and Artificial Intelligence-, preparing all the necessary materials to do so. In detail, I taught Data Structures.
- Conduct research and publish it in top journal publications and conferences in the topics of Computational Color Constancy.

RESEARCH STAYS

Visiting Student

University of East Anglia, Norwich, United Kingdom

Feb. 2010-May 2010

Visiting Student

University of East Anglia, Norwich, United Kingdom

Apr. 2009-Jul. 2009

LANGUAGES

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

INDICATORS

JCR journals:

- 26 publications in JCR journals: 14 in Q1 journals (7 in D1: 1 IEEE-TPAMI, 5 IEEE-TIP, 1 SIAM-SIIMS), 6 in Q2. 11 as first author, 10 as second author.
- Average number of authors per paper: 3.52.

Conferences:

- 32 international conference publications.
- 2 in Class-1 (excellent-top notch), 5 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:** 1230 citations, h-index=18, i10-index=30.
- **Web of Science:** 599 citations, h-index=14, i10-index=17.

Direction of students:

- 3 PhD Theses co-supervised (2 at Univ. Pompeu Fabra (UPF), 1 at Univ. East Anglia (UEA)).

Funding secured:

- Proyectos de Generación del Conocimiento. Explainable and interpretable Image Enhancement. Co-PI. 130,500€.
- 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 €.
- Ramón y Cajal Grant -2021 call- (Ranked in top 9%). -declined due to gaining a permanent position-.
- Grants for the retraining of University Staff -2021-. 60,000 €.
- Competitive Mobility Scholarships worth 10,500 €.

Technology Transfer:

- 1 European Patent granted.
- 1 European Patent filed.

PATENTS

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 granted (filed: 2017, granted: 2021).

INVITED TALKS

- 2022 (1): CIMAT, Mexico
- 2021 (2): University of Giessen, Germany; Huawei workshop on Spectral Color Imaging Techniques, Online (Russia-based).
- 2020 (1): Huawei workshop on Accurate Color Reproduction, Online (Russia-based).
- 2019 (2): Huawei workshop on Color and Multispectral Imaging, Belarus; Spectral Edge, Ltd, United Kingdom.
- 2018 (2): Cortexica Ltd, United Kingdom; Computer Vision Center, Spain.
- 2017 (3): Linköping University, Sweden; Universidad Politécnica de Madrid, Spain; Universidad Rey Juan Carlos, Spain.
- 2015 (2): University of East Anglia, United Kingdom; Computer Vision Center, Spain.
- 2013 (1): Universitat Pompeu Fabra, Spain.
- 2012 (4): University of Newcastle, United Kingdom; Leeds University, United Kingdom; University of Bradford, United Kingdom; Al Balqa University, Jordan.

THESES SUPERVISED

3. Fufu Fang – PhD-Co-supervised with G.D. Finlayson and M. Mackiewicz; 23/10/2020; “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

- Grants for the retraining of University teaching staff, Ministerio de Universidades, Gobierno de España (Spanish Government), 60,000 €, 2021.
- Ramón y Cajal, Ministerio de Ciencia, Gobierno de España. Gobierno de España (Spanish Government), Declined due to gaining a permanent position, 2015.
- Juan de la Cierva-Incorporación, Ministerio de Economía y Hacienda (MINECO), Gobierno de España (Spanish Government), 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 (Spanish Government), 4,200 €, 2009.
- Grant for pursuing doctoral studies, Universitat Autònoma de Barcelona , -, 2006-2008.

AWARDS

- Honorary Lecturer, University of East Anglia, -, 2020-2023.
- Service Award, IS&T, -, 2022.
- Outstanding reviewer, CVPR, -, 2021.
- Outstanding reviewer, ICCV, -, 2021.
- 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

- **Examiner on 6 PhD Thesis and 14 MSc Thesis.**
 - **Hassan Sial**, PhD Thesis, Universitat Autònoma de Barcelona (27/09/2021).
 - **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:

- **Color and Imaging Conference**, TBD) (11/2024).
- **London Imaging Meeting**, Online (Originally London, United Kingdom) (09/2020).

Program chair in:

- **Color and Imaging Conference**, Paris, France (11/2023).

Member of the organizing committee in:

- **London Imaging Meeting**, London, United Kingdom (07/2022).
- **Color and Imaging Conference**, Online (11/2021).
- **8th Annual catalan meeting in Computer Vision**, Online (09/2021).

- **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).
- **CVC Workshop on Research and development**. Organizer (10/2011).

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).
- **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), ACM TOMM, CVMJ, JEI, Mult. Syst., EURASIP-JIVP, JIST, SN-Computer Science.
- Conferences: CVPR, ICCV, ECCV, AAAI, BMVC, WACV, ACCV, CVM, CIC, VISAPP, WCPCV.

PARTICIPATION IN RESEARCH PROJECTS

As Principal Investigator:

- Multispectral Analysis and Color Imaging, **PI:** Javier Vazquez-Corral **Start/End date:** 02/2023-01/2026, **Budget:** 24.000€, **Financed by:** Catalan Government.
- Explainable & Interactive Visual Enhancement, **PI:** Javier Vazquez-Corral, L. Herranz **Start/End date:** 09/2022-08/2025, **Budget:** 130.500€, **Financed by:** Spanish Ministry of Science.
- In-camera Visibility Restoration, **PI:** Javier Vazquez-Corral, **Start/End date:** 10/2020-09/2023 (finished at 03/2021 due to PI changing institution), **Budget:** 181.500€, **Financed by:** Spanish Ministry of Science.

As Researcher:

- LiverColor: an AI platform for liver transplant assessment. From transplantation to ambulatory screening, **PI:** Gemma Piella **Start/End date:** 11/2021-11/2023 , **Budget:** 100,000 €, **Financed by:** CaixaImpulse Validate, CI21-00064
- LiverColor, **PI:** Gemma Piella **Start/End date:** 05/2021-12/2021, **Budget:** 30,000€, **Financed by:** UPF Innovalora Project.
- 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:** Fundación 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

- 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.
- 7 talks to different Schools aiming at motivating teenagers to study STEM subjects.

TEACHING

Post-graduate

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

- Human Vision System and Perception:
2021-2022: 2 hours.
2020-2021: 2 hours.
2019-2020: 2 hours.
- Image formation and color representation:
2021-2022: 2 hours.
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 Autònoma de Barcelona, Escola d'Enginyeria:

- Data Engineering:
2021-2022: Theory, seminars and Labs: 50 hours.
- Programming Laboratory:
2021-2022: Theory, seminars and Labs: 150 hours.
- Image Processing:
2021-2022: Theory, seminars and labs: 40 hours.
2020-2021: Seminars and Labs: 26 hours.

- 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.

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.

TEACHING PROJECTS AND TEACHING TRAINING

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 -JCR-

26. D. Xue, **J. Vazquez-Corral**, L. Herranz, Y. Zhang and M. S. Brown, “Integrating High [U+2010] Level Features for Consistent Palette[U+2010]based Multi[U+2010]image Recoloring”, *Computer Graphics Forum -Pacific Graphics-* , , 2023 (IF: , Q2).
25. Y. Sugito, **J. Vazquez-Corral**, T. Canham and M. Bertalmío, “Image quality evaluation in professional HDR/WCG production questions the need for HDR metrics”, *IEEE Transactions on Image Processing* **31**, 5163-5177, 2022 (IF: 11.041, Q1: 12/276, D1).
24. A. Gomez-Villa, A. Martín, **J. Vazquez-Corral**, J. Malo and M. Bertalmío, “On the synthesis of visual illusions using deep generative models”, *Journal of Vision* **Vol.22, 2.**, , 2022 (IF: 2.004, Q3: 44/61).
23. T. Canham, **J. Vazquez-Corral**, E. Mathieu and M. Bertalmío, “Matching visual induction effects on screens of different size”, *Journal of Vision* **21(6):10**, , 2021 (IF: 2.004, Q3: 44/61).
22. S.W. Zamir, **J. Vazquez-Corral**, and M. Bertalmío, “Vision models for Wide Gamut Imaging in cinema”, *IEEE Transactions on Pattern Analysis and Machine Intelligence* **43(5)**, 1777-1790, 2021 (IF: 24.314, Q1: 2/276, 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: 4.380, Q1: 17/72).
20. A. Gomez-Villa, A. Martin, **J. Vazquez-Corral**, M. Bertalmío, and J. Malo, “Color Illusions Also Deceive CNNs for Low-Level Vision Tasks: Analysis and Implications”, *Vision research* **176**, 156-174, 2020 (IF: 1.886, Q3: 46/62).
19. **J. Vazquez-Corral**, G. Finlayson and M. Bertalmío, “Physical-based optimization for non-physical image dehazing methods”, *Optics Express* **28(7)**, 9327-9339, 2020 (IF: 3.894, Q1: 20/99).
18. R. Gil Rodríguez, **J. Vazquez-Corral**, and M. Bertalmío, “Color matching unknown non-linear encoding images”, *IEEE Transaction on Image Processing* **29**, 4435-4444, 2020 (IF: 10.856, Q1: 9/273, D1).
17. **J. Vazquez-Corral**, A. Galdran, P. Cyriac, and 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: 2.358, Q3: 147/273).
16. R. Gil Rodríguez, **J. Vazquez-Corral**, and 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).

JOURNAL PAPERS -NO JCR-

1. Y. Sugito, T. Canham, **J. Vazquez-Corral**, and M. Bertalmío, “A Study of Objective Quality Metrics for HLG-Based HDR/WCG Image Coding”, *SMPTE Motion Imaging Journal* **130(4)**, 53-65, 2021 (Scopus SJR: 0.243, Q2).

INTERNATIONAL CONFERENCES

Main International Conferences

32. D. Xue, L. Herranz, **J. Vazquez-Corral**, and Y. Zhang, “Burst Perception-Distortion Tradeoff: Analysis and Evaluation”, *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, 2023

31. M. Conde, F-A. Vasluianu, **J. Vazquez-Corral**, and Radu Timofte, “Perceptual Image Enhancement for Smartphone Real-Time Applications”, Winter Applications on Computer Vision (WACV), 2023
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

21. T. Canham, **Javier Vazquez-Corral**, D. Long, R. Murray and M. S. Brown, “Noise Prism: A Novel Multispectral Visualization Technique ”, Color and Imaging Conference, 2023
20. G.D. Finlayson, **J. Vazquez-Corral**, and F. Fang, “The Discrete Cosine Maximum Ignorance Assumption”, Color and Imaging Conference, 2021
19. 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
18. **J. Vazquez-Corral** and G. Finlayson, “Coupled Retinex”, Color and Imaging Conference, 2019
17. G. Hemrit, F. Matsushita, M. Uchida, **J. Vazquez-Corral**, H. Gong, N. Tsumura and G. D. Finlayson, “Using the Monge-Kanterovich transform in chromagenic color constancy for pathophysiology”, Computational Color Imaging Workshop, 2019
16. **J. Vazquez-Corral**, G. Finlayson and M. Bertalmío, “Physically plausible dehazing for non-physical dehazing methods”, Computational Color Imaging Workshop, 2019

15. **J. Vazquez-Corral**, P. Cyriac and M. Bertalmío, “Perceptually-based restoration of backlit images”, Color and Imaging Conference, 2018
14. S.W. Zamir, **J. Vazquez-Corral**, and M. Bertalmío, “ Automatic, fast and perceptually accurate gamut mapping based on vision science models”, SMPTE Annual Conference, 2017.
13. R. Gil Rodríguez, **J. Vazquez-Corral**, and M. Bertalmío, “ Color-matching shots from different cameras having unknown gamma or logarithmic encoding curves”, SMPTE Annual Conference, 2017.
12. **J. Vazquez-Corral** and M. Bertalmío, “Gamut mapping for visual attention retargeting”, Color and Imaging Conference, 2017
11. S. W. Zamir, **J. Vazquez-Corral**, and M. Bertalmío, “Gamut Reduction Through Local Saturation Reduction”, Color and Imaging Conference, 2017
10. S.W. Zamir, **J. Vazquez-Corral**, and M. Bertalmío, “ Perceptually-based Gamut Extension Algorithm for Emerging Wide Color Gamut Display and Projection Technologies”, SMPTE Annual Conference, 2016.
9. **J. Vazquez-Corral**, S.W. Zamir, A. Galdran, D. Pardo, and M. Bertalmío, “Image processing applications through a variational perceptually-based color correction related to Retinex”, Color Imaging XXI: Displaying, Processing, Hardcopy, and Applications XXI, 2016.
8. **J. Vazquez-Corral** and M. Bertalmío, “Perceptually-inspired gamut mapping between any gamuts with any intersection”, AIC Midterm Meeting, 2015.
7. S.W. Zamir, **J. Vazquez-Corral**, and M. Bertalmío, “Gamut extension for cinema: psychophysical evaluation of the state of the art and a new algorithm”, Human Vision and Electronic Imaging XX, IST/SPIE Electronic Imaging, 2015.
6. P. Cyriac, D. Kane, M. Bertalmío, and **J. Vazquez-Corral**, “A Tone Mapping Operator Based on Neural and Psychophysical Models of Visual Perception”, Human Vision and Electronic Imaging XX, IST/SPIE Electronic Imaging, 2015.
5. **J. Vazquez-Corral**, S.W. Zamir, and M. Bertalmío, “Considering saliency in a perception inspired gamut reduction algorithm”, 22nd Color Imaging Conference (CIC), 2014.
4. **J. Vazquez-Corral**, G. D. Finlayson, and M. Vanrell, “A compact singularity function to predict WCS Color Names and unique hues”, Conference on Colour in Graphics, Imaging, and Vision, 2010.
3. **J. Vazquez-Corral**, M. Vanrell, and R. Benavente, “Color Names as a constraint for Computer Vision problems”, Create Conference, 2010.
2. **J. Vazquez-Corral**, M. Vanrell, R. Baldrich, and C. A. Parraga, “Towards a psychophysical evaluation of colour constancy algorithms”, Conference on Colour in Graphics, Imaging, and Vision, 2008.
1. E. Vazquez, R. Baldrich, **J. Vazquez-Corral**, and M. Vanrell, “Topological histogram reduction towards colour segmentation”, Iberian conference on Pattern Recognition and Image Analysis (IBPRIA), 2007.
0. **J. Vazquez-Corral**, M. Vanrell, A. Salvatella, and E. Vazquez, “A colour space based on the image content”, Catalan Conference on Artificial Intelligence (CCIA), 2007.

ABSTRACTS IN JCR JOURNALS

5. J. Patel, A. Flachot, **J. Vazquez-Corral**, D. H. Brainard, T. S. A. Wallis, M. A. Brubaker, and R. F. Murray, “A deep convolutional neural network trained to infer surface reflectance is deceived by mid-level lightness illusions ”, *Journal of Vision* **23**, , 2023.
4. C. Gomez-Gavara, M. Moya Gimenez, M. Teresa Salcedo, G. Piella, **J. Vazquez Corral**, R. Martin, B. Pares, E. Pando, J. Andres Molino, C. Dopazo, M. Dalmau, E. Hidalgo, M. Caralt, I. Bilbao, and R. Charco, “Livercolor: An algorithm quantification of liver graft steatosis using machine learning and color image processing”, *Transplant international* **32**, 419-420, 2019.
3. **J. Vazquez-Corral**, S.W. Zamir, and M. Bertalmío, “Gamut mapping based on vision models”, *Perception* **48:3**, 271, 2018.
2. **J. Vazquez-Corral**, C. A. Parraga, and M. Vanrell, “Ordinal pairwise method for natural images comparison”, *Perception* **36:Supp**, 180, 2009.
1. C. A. Parraga, **J. Vazquez-Corral**, and M. Vanrell, “A new cone-activation based natural image dataset”, *Perception* **36:Supp**, 180, 2009.

ABSTRACTS IN NON-JCR JOURNALS

1. **J. Vazquez-Corral**, “Color constancy in natural images through color naming and sensor sharpening”, *ELCVIA* **13 (2)**, Special Issue on Recent PhD Thesis Dissemination, 2014.

BOOK CHAPTERS

2. S.W. Zamir, **J Vazquez-Corral**, and M. Bertalmío, Variational Methods for Gamut Mapping in Cinema and Television, Imaging, Vision and Learning Based on Optimization and PDEs, Springer, 2018.
1. A. Gonzalez, R. Benavente, O. Penacchio, **J. Vazquez-Corral**, M. Vanrell, and C. A. Parraga, Coloresia: An Interactive Colour Perception Device for the Visually Impaired, Multimodal Interaction in Image and Video Applications, 47-66, Springer, 2013.