

# Javier Vazquez-Corral

Associate Professor  
Autonomous University of Barcelona  
and  
Senior Researcher  
Computer Vision Center  
[javier.vazquez@cvc.uab.cat](mailto:javier.vazquez@cvc.uab.cat)  
<http://jvazquezcorral.github.io>

## 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, and image denoising. I have published 31 articles in top-ranked journals (26 of them as either first or second author) and 40 international conferences. I have an European Patent granted -and a second application in process-, and research experience in cutting-edge research labs in Spain, UK, Canada, 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 1100 hours of teaching already performed.

## EDUCATION

---

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

## APPOINTMENTS

---

<b>Associate Professor</b>	Mar. 2021-
<i>Universitat Autònoma de Barcelona, Barcelona, Spain</i>	
<ul style="list-style-type: none"><li>• Coordinate university subjects, preparing exams, and marking grades and reports.</li><li>• 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.</li><li>• Lead the research of graduate students and post-doctoral researchers advising them on research matters.</li><li>• Conduct top-notch research and publish it in top journal publications and conferences.</li><li>• Participate and serve on faculty committees, and perform administrative duties as requested by the head of school.</li></ul>	

**Senior Researcher**

Jul. 2021-

*Computer Vision Center, Barcelona, Spain*

- Affiliated Researcher. Research in Computational Color.

**Honorary Lecturer**

Jul. 2020- Jun. 2023

*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**

Oct. 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

---

<b>Invited Scholar</b> <i>York University, Toronto, Canada</i>	Sep. 2022-Aug. 2023
<b>Visiting Postdoctoral researcher</b> <i>Simon Fraser University, Vancouver, Canada</i>	Jun. 2011-Jun. 2011
<b>Visiting Student</b> <i>University of East Anglia, Norwich, United Kingdom</i>	Feb. 2010-May 2010
<b>Visiting Student</b> <i>University of East Anglia, Norwich, United Kingdom</i>	Apr. 2009-Jul. 2009

## LANGUAGES

---

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

## INDICATORS

---

### JCR journals:

- 32 publications in JCR journals: 16 in Q1 journals (7 in D1: 1 IEEE-TPAMI, 5 IEEE-TIP, 1 SIAM-SIIMS, 1 PR), 10 in Q2. 12 as first author, 14 as second author.

### Conferences:

- 42 international conference publications.
- 8 in Class-1 (excellent-top notch), 6 in Class-2 (very good) of the GII-GRIN-SCIE ranking.

### Scientific Recognitions

- Research Accredited by ANECA and AQU for the period 2007-2012.
- Research Accredited by ANECA and AQU for the period 2013-2018.

### Scientific research impact:

- **Google Scholar:** 1544 citations, h-index=20, i10-index=33 (14/02/2025).
- **Scopus:** 871 citations, h-index=16, i10-index=23 (14/02/2025).

### Direction of students:

- 4 PhD Theses co-supervised (2 at Univ. Pompeu Fabra (UPF), 1 at Univ. East Anglia (UEA), 1 at Univ. Aut3noma de Barcelona).
- Currently co-supervising 2 PhD Thesis.

### Funding secured:

- Proyectos de Generaci3n 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 €.
- Research project with a major Phone Company. Principal investigator. 91.000 €.
- 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

---

- 2025 (1): Universidad Autónoma de Madrid, Spain
- 2024 (1): Huawei workshop on Future Imaging, France; HP Color Group, online
- 2023 (1): Université Laval, Canada
- 2022 (2): CIMAT, Mexico; Huawei workshop on Future Imaging, France
- 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

---

4. Danna Xue – PhD-Co-supervised with L. Herranz and Y. Zhang; 11/07/2024; “On Considering Semantics for Multi-image Processing”, *Autònoma de Barcelona*
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, 2021.
- 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

---

- Outstanding Area Chair, WACV, -, 2024.
- Honorary Lecturer, University of East Anglia, -, 2020-2023.
- Service Award, IS&T, -, 2022.
- Accreditation of Research Merits, ANECA-AQU, -, 2007-12.
- Accreditation of Research Merits, ANECA-AQU, -, 2013-18.
- 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 9 PhD Thesis and 19 MSc Thesis.**

- **Roberto Alcover-Couso**, PhD Thesis, Universidad Autónoma de Madrid (07/02/2025).
- **Yixiong Yang**, PhD Thesis, Universitat Autònoma de Barcelona (13/10/2024).
- **Shuwei Yue**, PhD Thesis, Polytechnical University of Hong Kong (20/08/2024).
- **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**, Vancouver, Canada) (10/2024).
- **London Imaging Meeting**, Online (Originally London, United Kingdom) (09/2020).

*Program chair in:*

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

*Series chair in:*

- **London Imaging Meeting**, London, United Kingdom (09/2025).

*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).

*Area chair in:*

- **CVPR** (2025).
- **WACV** (2025).
- **ECCV** (2024).
- **WACV** (2024).

*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:**

- Research project with a major Phone Company, **PI:** Javier Vazquez-Corral **Start/End date:** 03/2024-02/2025, **Budget:** 91.000€, **Financed by:** Major Phone company.
- 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 Comission 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-matematicques/>

- 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

---

### Post-graduate

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

- Human Vision System and Perception:  
**2024-2025:** 2 hours.  
**2023-2024:** 2 hours.  
**2022-2023:** 2 hours.  
**2021-2022:** 2 hours.  
**2020-2021:** 2 hours.  
**2019-2020:** 2 hours.
- Image formation and color representation:  
**2024-2025:** 2 hours.  
**2023-2024:** 2 hours.  
**2022-2023:** 2 hours.  
**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:  
**2023-2024:** Theory, seminars and Labs: 38 hours.  
**2021-2022:** Theory, seminars and Labs: 50 hours.
- Programming Laboratory:  
**2024-2025:** Theory, seminars and Labs: 100 hours.  
**2023-2024:** Theory, seminars and Labs: 50 hours.  
**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-

---

32. N. Chahine, S. Ferradans, **J. Vazquez-Corral**, and J. Ponce, “Generalized portrait quality assessment”, **189**, 122-128, 2025 (IF: 3.9; Q2: 65/197).
31. R. Gil-Rodriguez, **J. Vazquez-Corral**, M. Bertalmio and G. Finlayson, “Color Matching in the wild”, *Pattern Recognition* **154**, 110575, 2024 (IF: 7.5, Q1:25/352, D1).
30. D. Xue, **J. Vazquez-Corral**, L. Herranz, Y. Zhang and M. S. Brown, “Palette-based Color Harmonization via Color Naming”, *IEEE Signal Processing Letters* **31**, 1474-1478, 2024 (IF: 3.2, Q2:130/352).
29. **J. Vazquez-Corral**, G.D. Finlayson, and L. Herranz, “Improving the perception of low-light enhanced images”, *Optics Express* **32**, 5174-5190, 2024 (IF:3.2 , Q2: 36/119).
28. C. Gómez-Gavara -et al- (**My author order: 4/20**), “Enhanced artificial intelligence methods for liver steatosis assessment using machine learning and color image processing. LiverColor project.”, *Clinical Transplantation*. **38(10)**, e15465, 2024 (IF: 1.9, Q2:117/290).
27. G. Piella, N. Farré, D. Esono, M. Á. Cordobés, **J. Vazquez-Corral**, I. Bilbao and C. Gómez-Gavara, “LiverColor: An Artificial Intelligence Platform for Liver Graft Assessment”, *Diagnostics* **14(15): 1654**, , 2024 (IF: 3.0, Q1:58/325).
26. D. Xue, **J. Vazquez-Corral**, L. Herranz, Y. Zhang and M. S. Brown, “Integrating High-Level Features for Consistent Palette-based Multi-image Recoloring”, *Computer Graphics Forum -Pacific Graphics-* **42(7)**, e14964, 2023 (IF: 2.7 , Q2: 44/131).
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

42. M. Pilligua, D. Xue, and **J. Vazquez-Corral**, “HyperNVD: Accelerating Neural Video Decomposition via Hypernetworks”, *Computer Vision and Pattern Recognition (CVPR)*, 2025 (Acceptance rate: 22.1%).
41. A. Gomez-Villa, K. Wang, C. A. Parraga, B. Twardowski, J. Malo, **J. Vazquez-Corral**, J. van de Weijer, “The Art of Deception: Color Visual Illusions and Diffusion Models”, *Computer Vision and Pattern Recognition (CVPR)*, 2025 (Acceptance rate: 22.1%).
40. D. Serrano-Lozano, L. Herranz, M. Brown, and **J. Vazquez-Corral**, “Learned Image Enhancement via Color Naming”, *European Conference on Computer Vision (ECCV)*, 2024 (Acceptance rate: 27.9%).
39. M. Atif, K. Wang, **J. Vazquez-Corral** and J. van de Weijer, “ColorPeel: Color Prompt Learning with Diffusion Models via Color and Shape Disentanglement”, *European Conference on Computer Vision (ECCV)*, 2024 (Acceptance rate: 27.9%).
38. J. Giroux, MRK Dastjerdi, Y. Hold-Geoffroy, **J. Vazquez-Corral** and J-F. Lalonde, “Towards a Perceptual Evaluation Framework for Lighting Estimation”, *Computer Vision and Pattern Recognition (CVPR)*, 2024 (Acceptance rate: 23.6%).
37. M. Conde, **J. Vazquez-Corral**, M. S. Brown and Radu Timofte, “NILUT: Conditional Neural Implicit 3D Lookup Tables for Image Enhancement”, *AAAI Conference on Artificial Intelligence (AAAI)*, 2024 (Acceptance rate: 23.75%).
36. 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 (Acceptance rate: 45.1%).
35. 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 (Acceptance rate: 40.7%).
34. 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 (Acceptance rate: 45.5%).
33. 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

32. 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 (Acceptance rate: 25%).
31. A. Galdran, P. Costa, **J. Vazquez-Corral**, and A. Campilho, “Weakly supervised fog detection”, IEEE International Conference on Image Processing (ICIP), 2018 (Acceptance rate: 47.9%).
30. 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), (Acceptance rate: 29.6%).
29. **J. Vazquez-Corral** and M. Bertalmío, “Log-encoding estimation for color stabilization of cinematic footage”, IEEE International Conference on Image Processing (ICIP), 2016 (Acceptance rate: 45%).
28. 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 (BMVC), 2015 (Acceptance rate: 33.6%).
27. 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 (Acceptance rate: 47.8%).

#### Other international conferences

26. Maria Pilligua, Nil Biescas, **Javier Vazquez-Corral**, Josep Lladós, Ernest Valveny, Sanket Biswas , “LayeredDoc: Domain Adaptive Document Restoration with a Layer Separation Approach”, ICDAR 2024 Workshops, 2024
25. 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
24. Y. Li -et al- (**My author order: 44/81**), “NNTIRE 2023 challenge on image denoising: Methods and results”, Computer Vision and Pattern Recognition Workshops (CVPRW), 2013.
23. G.D. Finlayson, **J. Vazquez-Corral**, and F. Fang, “The Discrete Cosine Maximum Ignorance Assumption”, Color and Imaging Conference, 2021
22. 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
21. **J. Vazquez-Corral** and G. Finlayson, “Coupled Retinex”, Color and Imaging Conference, 2019
20. 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
19. **J. Vazquez-Corral**, G. Finlayson and M. Bertalmío, “Physically plausible dehazing for non-physical dehazing methods”, Computational Color Imaging Workshop, 2019
18. **J. Vazquez-Corral**, P. Cyriac and M. Bertalmío, “Perceptually-based restoration of backlit images”, Color and Imaging Conference, 2018
17. 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.
16. 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.



15. 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.
14. **J. Vazquez-Corral** and M. Bertalmío, “Gamut mapping for visual attention retargeting”, Color and Imaging Conference, 2017
13. S. W. Zamir, **J. Vazquez-Corral**, and M. Bertalmío, “Gamut Reduction Through Local Saturation Reduction”, Color and Imaging Conference, 2017
12. 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.
11. **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.
10. **J. Vazquez-Corral** and M. Bertalmío, “Perceptually-inspired gamut mapping between any gamuts with any intersection”, AIC Midterm Meeting, 2015.
9. 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.
8. 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.
7. 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.
6. **J. Vazquez-Corral**, S.W. Zamir, and M. Bertalmío, “Considering saliency in a perception inspired gamut reduction algorithm”, 22nd Color Imaging Conference (CIC), 2014.
5. **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.
4. **J. Vazquez-Corral**, M. Vanrell, and R. Benavente, “Color Names as a constraint for Computer Vision problems”, Create Conference, 2010.
3. **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.
2. 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.
1. **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

---

6. J. Patel, A. Flachot, **J. Vazquez-Corral**, D. H. Brainard, K. G. Derpanis and R. F. Murray, “Lightness Illusions Through AI Eyes: Assessing ConvNet and ViT Concordance with Human Perception”, *Journal of Vision* **24**, , 2024.

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.