

# Joost van de Weijer

## Curriculum Vitae

Updated November 2019

### Personal Details

name: Joost van de Weijer  
Gender: Male  
Nationality: Dutch  
Place of birth: Kisii, Kenya  
Date of birth: November 18, 1974

### Office

Computer Vision Center Barcelona  
Edifici O, Campus UAB  
08193 Bellaterra, Cerdanyola (Barcelona)  
Phone +34 93 581 1670  
joost@cvc.uab.es

### Research Interests

Deep learning, computer vision, color imaging, object recognition, lifelong learning, active learning, color image processing

### Current Position

**Group Leader:** Computer Vision Center Barcelona ..... 2016-present  
Leader of the Learning and Machine Perception (LAMP) group in the Computer Vision Center. The group has 19 members: five doctors (of which 2 postdocs) and fourteen PhD students working on deep learning applied to computer vision. The group focusses on publications in CVPR, ECCV, ICCV, NIPS and the major journals PAMI, IJCV, and TIP.

### Professional Experience

**Senior Scientist:** Computer Vision Center Barcelona ..... 2013-2015  
Senior scientist at the computer vision center. Main research on color in computer vision, object recognition.

**Ramon y Cajal Fellow:** Universitat Autònoma de Barcelona ..... 2008-2012  
Stationed at the Computer Vision Center Barcelona. Research in a number of projects related to color in computer vision, image processing and object recognition.

**Marie Curie Intra-European Fellow (Postdoc):** INRIA Rhône-Alpes ..... 2005-2007  
Conducting research on the PHIOR (PHotometric Invariant Object Recognition) project supervised by with dr. C. Schmid.

**Ph.D. Student:** University of Amsterdam ..... 1999-2005  
Conducted PhD research in the group of Prof. A.W.M. Smeulders under the supervision of T. Gevers on the subject of photometric invariance theory applied to feature extraction.

**Assistant Researcher:** Delft University of Technology ..... 1998  
Adapted M.Sc. thesis research for journal publication.

### Education

Ph.D. in Computer Science: University of Amsterdam ..... March, 2005  
M.Sc. in Applied Physics: Delft University of Technology ..... 1998

### Projects, Principal Investigator

2017-2018: RUBSEE project SME-2: industrial project for computer vision for recycling (125KEuro, subcontracted).

2017-2020: Deep Multi-Task Learning for Object Recognition, Spanish Ministry of Education and Science: national support for travel, material, technical support for group (39KEuro).

2016-2018: Multimodal Multilingual Continuous Representation for Human Language Understanding (M2CR) (88KEuro).

2014-2016: Closing the loop: bio-inspired top-down feedback for computational vision systems, Spanish Ministry of Education and Science: national support for travel, material, technical support for

group (77KEuro).

2014-2015: Accurate color measurements from hand-held devices, Spanish Ministry of Education and Science, EXPLORA Tecnología project on multispectral data acquisition (36KEuro).

2014-2016: Generalitat de Catalunya, Suport als Grups de Recerca de Catalunya (SGR): Support for starting research groups (15KEuro).

2010-2013: Holistic color image understanding, Spanish Ministry of Education and Science: national support for travel, material, technical support for group (85KEuro).

2008-2011: European Re-integration Grant of the Commission of the European Union: support to start-up group (45 KEuro).

### Participation in Research Projects and Network projects

**RISE project:** Cyber-Physical Systems for PEdagogical Rehabilitation in Special EDucation (Cyber), RISE project Funded by EU (19k)..... 2017-2021

**CYTED project:** Red Tematica Iberoamericana sobre aplicaciones TICs para Ciudades(TICs4CI) (funding managed by coordinator Angel Sappa, mainly for visits/research stays) ..... 2018-2021

**Consolider project:** Multimodal Interaction in Pattern Recognition and Computer Vision (MIPRCV) National project on multimodal interaction combining research groups from Spain (total project budget for CVC 532 KEuro). Role: coordinated development of demonstrator. .... 2008-2012

### Personal Competitive Fellowship

2013-2015: I3, competitive fellowship of the Spanish Ministry of Science.

2007-2012: Ramon y Cajal Fellowship, research Fellowship of the Spanish Ministry of Science (189 KEuro).

2005-2007: Marie-Curie Intra-European Fellowship of the Commission of the European Union (140 KEuro).

### Technology Transfer Projects, Principle Investigator

2019-2021:Project on Continual Learning. Huawei HiSilicon. Principle investigator (516KEuro).

2019:Project on Compressed Data.Car Manufacturer. Principle investigator together with Antonio Lopez (66KEuro).

2018:Project on Scene Reconstruction. Car Manufacturer. Principle investigator together with Antonio Lopez (95KEuro).

2018:Project on Active Learning 3. Car Manufacturer. Principle investigator together with Antonio Lopez (88KEuro).

2018:Project on Active Learning 2. Car Manufacturer. Principle investigator together with Antonio Lopez (25KEuro).

2018:Project on Active Learning 1. Car Manufacturer. Principle investigator together with Antonio Lopez (65KEuro).

2017-2018:Continuous transfer learning and distilling. Car Manufacturer. Principle investigator together with Antonio Lopez (50KEuro).

2017:Phase 2: Project one Lifelong Learning for 2017-Proof of Concept. Car Manufacturer. Principle investigator together with Antonio Lopez(97KEuro).

2017:Phase 1: Project one Lifelong Learning for 2017-Proof of Concept. Car Manufacturer. Principle investigator together with Antonio Lopez(92KEuro).

2015-2016: Image similarity measure estimation with Deep Networks (60KEuro). EURECAT. Principle investigator together with Dimosthenis Karatzas.

2014-2015: Deep Learning and Computer Vision consultancy to Wide Eyes Technologies (5KEuro).

2015-2016: Computer vision consultancy to Wide Eyes Technologies (6KEuro).

2014-2015: Deep Learning and Computer vision consultancy to Sadako Technologies (5KEuro).

### Mobility

**Invited Professor:** Laboratoire Hubert Curien, University Jean Monnet St.Etienne (1 month) 2014

**Marie-Curie Fellow:** Intra-European Fellowship at LEAR team INRIA Rhone-Alpes (30 months) 2005-2007

**International Internship :** Lawrence Berkeley National Laboratory (3 months) ..... 1997

## Teaching

**Instructor:** Universitat Autònoma de Barcelona ..... 2014-2017  
Organize and teach practical course object recognition and deep learning in the master of Computer Vision.

**Instructor:** Universitat Autònoma de Barcelona ..... 2008-2013  
Organize and teach in case-based object-recognition project at the master of Computer Vision and Artificial Intelligence.

**Lecturer:** Universitat Autònoma de Barcelona ..... 2008-2010  
Teach several classes on machine learning and object recognition at the master of Computer Vision and Artificial Intelligence.

**Teaching Assistant:** University of Amsterdam ..... 1999-2003  
Organized and supervised several Computer Vision labs.

### Postdocs:

Ramon Moreno ..... 2014-2015  
Luis Herranz ..... 2017-2020  
Abel Gonzalez ..... 2017-2019  
David Berga ..... 2019-2021  
Bartłomiej Twardowski ..... 2019-2021

### PhD students:

Lichao Zhang (Director) ..... 2015-2019  
Lu Yu (Director) ..... 2015-2019  
Aymen Azaza (Director) ..... 2014-2018  
Adrià Ruiz (Co-director) ..... 2013-2017  
Rao Anwer (Co-Director) ..... 2009-2013  
Shida Beigpour (Director) ..... 2009-2013  
Fahad Shahbaz Khan (Director) ..... 2008-2011  
ongoing:

Shiqi Yang (Director) ..... 2019-2023  
Albin Soutif (Director) ..... 2019-2023  
Mikel Menta (Director) ..... 2018-2022  
Wang Kai (Director) ..... 2017-2021  
Aitor Alvarez Gila (Director) ..... 2017-2021  
Oguz Yazici (Director) ..... 2017-2020  
Carola Figueroa Flores (Director) ..... 2016-2020  
Xia-lei Liu (Director) ..... 2016-2019  
Marc Masana (Director) ..... 2015-2019  
Laura López (Director) ..... 2015-2019  
Yanxing Wang (Director) ..... 2015-2019

### Master students:

Jordi Puyoles ..... 2019  
Xialei Liu ..... 2016  
Arcadi Llanza ..... 2016  
Olaia Artieda Aguirre ..... 2016  
Sergi Canyameres Masip ..... 2016  
Marc Masana ..... 2015  
Esteve Cervantes ..... 2015  
Adria Ruiz Ovejero ..... 2013  
Long Long Yu ..... 2013  
Isaac Alonso ..... 2012  
Min Yong Yoon ..... 2011

David Rojas Vigo .....	2009
Shida Beigpour .....	2009
Fahad Shahbaz Khan .....	2008
Juan Toledo .....	2008

### Postgraduate Courses

<b>Tutorial:</b> Int. Conf. on Computer Vision (ICCV) in Barcelona. ....	2011
Instructor of the Color Image Understanding tutorial.	
<b>Tutorial:</b> Deutsche Arbeitsgemeinschaft für Mustererkennung (DAGM) in Darmstadt.....	2010
Instructor of the Color in Computer Vision tutorial.	
<b>Tutorial:</b> Int. Conference on Image Processing (ICIP) in Cairo. ....	2009
Instructor of the Color in Image and Video Processing tutorial.	
<b>Tutorial:</b> Computer Vision Center Barcelona.....	2008
Instructor at the New Trends in Pattern Recognition and Motion Analysis summer school.	

### Technology Transfer/Demos

<b>Demo:</b> Image retrieval demo at the MIPRCV Industry Day at CONSOLIDER INGENIO 2010 program. ....	2012-present
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### Benchmark Events

<b>Multimodal Machine Translation:</b> .....	2018
Winner of the Multimodal Machine Translation task for English-French (second for English-German) organized at the machine translation conference (WMT2017). Joint submission together with the University LeMans.	
<b>Multimodal Machine Translation:</b> .....	2017
Winner of the Multimodal Machine Translation task organized at the machine translation conference (WMT2017). Joint submission together with the University LeMans.	
<b>Multimodal Machine Translation:</b> .....	2016
Winner of the Multimodal Machine Translation task organized at the machine translation conference (WMT2016). Joint submission together with the University LeMans.	
<b>VOC PASCAL Challenge:</b> .....	2012
Organized the VOC PASCAL challenge submission with a team of researchers from the Computer Vision Center and University of Amsterdam. <i>Honorable mention</i> for Image Classification.	
<b>VOC PASCAL Challenge:</b> .....	2010
Organized the VOC PASCAL challenge submission with a team of 8 researchers from the Computer Vision Center. <i>Winner</i> of Image Segmentation. <i>Winner</i> of Action Recognition in Still Images.	
<b>VOC PASCAL Challenge:</b> .....	2009
Organized the VOC PASCAL challenge 2009 submission with a team of 15 researchers from the Computer Vision Center. <i>Honorable mention (2nd position)</i> in image classification. <i>Runner-up award (2nd position)</i> in image segmentation.	
<b>VOC PASCAL Challenge:</b> .....	2007
<i>Winner</i> of the VOC PASCAL challenge 2007 image classification benchmark. Complete team: M. Marszałek, C. Schmid, H. Harzallah, J. van de Weijer.	

### Professional Service

<b>Area chair,</b> British Machine and Vision Conference, BMVC .....	2019
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**Area chair**, European Conf. on Computer Vision, ECCV .....2018  
**Area chair**, Int. Conf. on Computer Vision, ICCV ..... 2017  
**Area chair**, European Conf. on Computer Vision, ECCV .....2016  
**Area chair**, Int. Conf. on Pattern Recognition, ICPR ..... 2016  
**Area chair**, Int. Conf. on Computer Vision, ICCV ..... 2015  
**Area chair**, Int. Conf. on Pattern Recognition, ICPR ..... 2014

**Tutorial chair**, Iberian conference on Pattern Recognition and Image Analysis, IBPRIA ..... 2011

**Associate editor** Editorial board of Computer Vision and Image Understanding (CVIU), 2016-2019.

**Guest editor** Special Issue on Color in Texture and Material Recognition, Journal of Electric Imaging (JEI), 2016.

**Organizer:**

Workshop chair / Organizer, 5th Color and Photometry in Computer Vision Workshop in conjunction with ICCV (Chile), CPCV ..... 2015  
 Workshop chair / Organizer, Color in Texture and Material Recognition Workshop in conjunction with ICIAP (Genova) ..... 2015  
 Workshop chair / Organizer, 3rd Color and Photometry in Computer Vision Workshop in conjunction with ICCV (Sydney), CPCV ..... 2013  
 Workshop chair / Organizer, 2nd Color and Photometry in Computer Vision Workshop in conjunction with ECCV (Florence), CPCV ..... 2012  
 Workshop chair / Organizer, 1st IEEE Color and Photometry in Computer Vision Workshop in conjunction with ICCV (Barcelona), CPCV ..... 2011  
 Workshop chair / Organizer, Color and Reflectance in Imaging and Computer Vision Workshop in conjunction with ECCV (Crete), CRICV ..... 2010  
 Workshop chair / Organizer, IEEE Color and Reflectance in Imaging and Computer Vision Workshop in conjunction with ICCV (Kyoto), CRICV ..... 2009

**Technical Program Committees:**

Computer Vision and Pattern Recognition (CVPR): 2007, 2009-2020  
 European Conf. on Computer Vision (ECCV): 2008, 2010, 2012, 2014  
 Int. Conf. on Computer Vision (ICCV): 2009, 2011, 2013  
 Neural Information Processing Systems (NeurIPS): 2007,2019  
 Int.l Conf. on Learning Representations (ICLR): 2020  
 Int.l Conf. on Machine Learning (ICML): 2020  
 Int. Conf. on Image Processing (ICIP): 2004-2011, 2013, 2016, 2018  
 Int. Conf. on Pattern Recognition (ICPR): 2008, 2012, 2018  
 British Machine and Vision Conference (BMVC): 2012, 2013  
 German Conference on Pattern Recognition (GCPR): 2013  
 Asian Conference on Computer Vision (ACCV): 2007, 2010  
 Conf. on Colour and Graphics (CGIV): 2010, 2012  
 Int. Conf. on Pattern Recognition Applications and Methods (IMAGAPP) : 2011, 2016  
 Int. Conf. on Computer Vision Theory and Application (VISAPP) : 2012, 2013, 2014, 2016, 2017  
 Machine Learning for Signal Processing (MLSP) : 2012  
 Int. Conf. on Multimedia & Expo (ICME05): 2005  
 ACM Siggraph Asia: 2016  
 Workshop on Feature Detectors and Descriptors, (in conjunction CVPR): 2009  
 Computational Color Imaging Workshop (CCIW): 2011, 2013, 2015  
 IEEE Workshop on Visual Analysis beyond Semantics (VABS), (in conjunction CVPR):2013  
 Workshop on Deep Vision: Deep Learning for Computer Vision, (in conjunction CVPR):2014, 2015, 2016  
 IEEE/ISPRS Workshop. Looking from above: When Earth observation meets vision EARTHVISION (in conjunction CVPR): 2015, 2016, 2017

Outstanding reviewer award: CVPR 2015, CVPR 2012, ECCV 2012

**Keynote Lectures:**

The Dichromatic Reflection Model - Future Research Directions and Applications, Int. Joint Conf. on Computer Vision, Imaging and Computer Graphics Theory and Applications (VISIGRAPP 2011), Vilamoura, Portugal, .....2011.

**Invited Talks WorkshopsConferences:**

Learning Deep Networks from Unlabeled Data, Huawei STW 2019, Huawei Chenzhen ..... 2019  
Learning from Rankings, BCN. AI, AI meeting in Barcelona, 2018. Domain-adaptive Deep Networks, UPC TelecomBCN Deep Learning: Winter School Guest Lectures, .....2018. Thinking end-to-end in computer vision applications, Jornada Tecnica Deep Learning, Tecnalia, Bilbao, ..... 2017  
Color Features in the Era of Big Data, The Fifth Computational Color Imaging Workshop (CCIW 2015), St. Etienne, France, ..... 2015.  
Coloring Object Recognition, Reunión Grupo Temático Visión por Computador, Jornadas de Automatica, Valencia, Spain, .....2014.  
Combining Color and Shape for Object Recognition, The Fourth Computational Color Imaging Workshop (CCIW 2013), Chiba, Japan, ..... 2013.

**Invited presentations and seminars:**

Learning Neural Networks for Domains with Few Labels ..... 2019  
Learning from Rankings, Telefonica Alpha Barcelona ..... 2018  
Learning Deep Networks from Unlabeled Data, Barcelona Supercomputing Center, ..... 2018  
Learning Deep Networks from ranked data, Universitat Pompeu Fabra ..... 2018  
Layer decomposition for Compression and Learning without Forgetting, Facebook Research Paris, 2018  
Real Time Crowd Counting, World Mobile Congress, ..... 2018  
Domain-adaptive Deep Networks, Telefonica, Barcelona, ..... 2017  
Weakly Supervised Learning for Facial Expression Recognition, University of Edinburgh, ..... 2016  
Intrinsic Images for Color Image Understanding, Universite Jean Monnet St. Etienne, ..... 2014  
Color for Object Recognition, University of Erlangen-Nuernberg, ..... 2014  
Combining Color and Shape for Object Recognition, Universiteit van Amsterdam, ..... 2013  
Combining color and shape for bag of words representations, Universite Jean Monnet St. Etienne, 2013  
Intrinsic Images for Color Image Understanding, Universitat Politecnica de Catalunya, Barcelona, 2012  
Combining Color and Shape Information for Object Recognition, Delft University of Technology, 2012  
Color Image Understanding in the Presence of Shadows and Specularities, Universitat Pompeu Fabra, Barcelona, ..... 2012  
Combining color and shape information for image classification, Ecole Normale Superior, Paris, .2010  
Bottom-up and top-down color attention for object recognition, Universitat de Valencia, ..... 2010  
Applying bottom-up and top-down color attention for improved bag-of-words based object recognition, INRIA, Grenoble, ..... 2010  
Photometric invariant color image understanding , Xerox Research Center Europe, Grenoble, ... 2010  
Color in bag-of-words based object recognition, Multimedia and Geometry, Universiteit Utrecht, 2010  
Coloring local feature extraction for object recognition, Computer Vision Center, Barcelona, ....2006  
Photometric invariant features, LEAR Team, INRIA Rhone-Alpes, ..... 2005  
Color features and local structure in images, Quantitative Imaging Group, Delft University of Technology, ..... 2005

**PhD Committees:**

Ozan Caglayan at the Le Mans Université, ..... 2019  
David Berga at the Universitat Autònoma de Barcelona, ..... 2019  
Amaia Salvador at the Universitat Politecnica de Catalunya, ..... 2019  
Rada Deeb at the Universite Jean Monnet de Saint-Etienne, ..... 2018  
Cesar Roberto de Souza at the Universitat Autònoma de Barcelona, ..... 2018  
Arash akbarinia at the Universitat Autònoma de Barcelona, ..... 2017  
Davide Mazzini at the University of Milano-Bicocca (reviewer), ..... 2017  
German Ros at the Universitat Autònoma de Barcelona, ..... 2016  
Anestis Papazoglou at the University of Edinburgh, ..... 2016  
Edgar Simo-Serra at the Universitat Politecnica de Catalunya, ..... 2015

Lin Gu at Australian National University (evaluator), .....	2014
Rahat Khan at the Universite Jean Monnet de Saint-Etienne, .....	2013
Javier Vazquez-Corral at the Universitat Autònoma de Barcelona, .....	2011
Jose M. Alvarez at the Universitat Autònoma de Barcelona, .....	2010
Arnau Ramisa at the Artificial Intelligence Research Institute de Barcelona, .....	2009
Robert Benavente Vidal at the Universitat Autònoma de Barcelona, .....	2007
Fransesc Tous Terrades at the Universitat Autònoma de Barcelona, .....	2006

**Popular Press:** Our research on color naming has been described in La Vanguardia, National Geographic (Spanish version), and covered in radio (RNE) and television (TV3) ..... July 2018

Our research on crowd counting has been described in over twenty newspapers and online news-sites and radio (CadenaSer,Catalunya Radio) and TV (Cuarto, TVE). Among the newspaper were El Pais, La Vanguardia, El Periodico, La Razon, ABC, Ara, Euronews. Folha de S.Paulo .....March 2018

Our research on painting recognition has been described in eight Spanish newspapers and online news-sites , among which El Mundo, La Vanguardia, El Periodico, La Razon and Ara. .... November 2014

## Publications

### Publications Indices:

H-index (Google Scholar) : 44

Number of Citations (Google Scholar) : >9000

### Authored Books:

1. T. Gevers, A. Gijsenij, J. van de Weijer, J.M. Geusebroek, "Color in Computer Vision: Fundamentals and Applications." , Series in Imaging Science and Technology, Wiley-IS&T, 2012.

### Journal Publications:

1. L. Zhang ; A. Gonzalez-Garcia ; J. van de Weijer ; M. Danelljan ; F. Shahbaz Khan "Synthetic Data Generation for End-to-End Thermal Infrared Tracking" *IEEE Transaction on Image Processing*, vol 28 (4), 1837-1850, 2019
2. A Azaza, J van de Weijer, A Douik, M Masana "Context proposals for saliency detection" *Computer Vision and Image Understanding*, vol. 174, 1-11, 2018
3. L. Lopez-Fuentes, J. van de Weijer, M. Gonzalez-Hidalgo, H. Skinnemoen, A. D. Bagdanov, "Review on computer vision techniques in emergency situations", *Multimedia Tools and Applications*, vol. 77(13)1, 17069-17107, 2018
4. R.M. Anwer, F.S. Khan, J. van de Weijer, M. Molinier, J. Laaksonen, Binary patterns encoded convolutional neural networks for texture recognition and remote sensing scene classification", *ISPRS Journal of Photogrammetry and Remote Sensing*, vol. 138, 74-85, 2018
5. F.S. Khan, J. van de Weijer, R.M. Anwer, A.D. Bagdanov, M. Felsberg, J. Laaksonen, "Scale coding bag of deep features for human attribute and action recognition", *Machine Vision and Applications*, vol. 29 (1), 55-71, 2018
6. L. Yu, L. Zhang, J. van de Weijer, F.S. Khan, Y. Cheng, C.A. Parraga, "Beyond Eleven Color Names for Image Understanding", *Machine Vision and Applications*, vol. 29 (2), 361-373, 2018
7. M. G. Mozerov and J. van de Weijer, " Improved Recursive Geodesic Distance Computation for Edge Preserving Filter.", *IEEE Transaction on Image Processing*, vol. 26(8):3696-3706, 2017.

8. M. G. Mozerov and J. van de Weijer, "Global color sparseness and a local statistics prior for fast bilateral filtering.", *IEEE Transaction on Image Processing*, vol. 24(12):5842-5832, 2015.
9. F. S. Khan, J. Xu, J. van de Weijer, A. D. Bagdanov, R. M. Anwer, and A. Lopez "Recognizing actions through action-specific person detection." *IEEE Transaction on Image Processing*, vol. 24(11):4422-4432, 2015.
10. M.G. Mozerov, J. van de Weijer "Accurate stereo matching by two-step energy minimization." *IEEE Transaction on Image Processing*, vol. 24(3):1153-1163, 2015.
11. F. S. Khan, R.M. Anwer, J. van de Weijer, M. Felsberg, J. Laaksonen "Compact Color-Texture Description for Texture Classification." *Pattern Recognition Letters*, vol 51:16-22, 2015.
12. F. S. Khan, J. van de Weijer, R. M. Anwer, M. Felsberg, C. Gatta "Semantic Pyramids for Gender and Action Recognition." *IEEE Transaction on Image Processing*, 23(8):3633–3645, 2014.
13. F. S. Khan, S. Beigpour, J. Van de Weijer, M. Felsberg "Painting-91: A Large Scale Database for Computational Painting Categorization." *Machine and Vision Application*, 25(6):1385–1397, 2014.
14. S. Beigpour, C. Riess, J. van de Weijer, E. Angelopoulou "Multi-Illuminant Estimation with conditional Random Fields." *IEEE Transaction on Image Processing*, vol 23(1):83-95, january 2014.
15. F. Khan, R.M. Anwer, J. van de Weijer, A. D. Bagdanov, A. M. Lopez, M. Felsberg, "Coloring Action Recognition in Still Images." *International Journal of Computer Vision*, vol. 105(3):205-221, 2013.
16. F. Khan, J. van de Weijer, M. Vanrell. "Modulating Shape Features by Color Attention for Object Recognition." *International Journal of Computer Vision*, vol 98(1):49-64, 2012.
17. Arjan Gijsenij, Theo Gevers, Joost van de Weijer. "Improving Color Constancy by Photometric Edge Weighting." *IEEE Transactions Pattern Analysis and Machine Intelligence*, vol. 34(5):918-929, 2012.
18. Noha M. Elfiky, Fahad Shahbaz Khan, Joost van de Weijer, Jordi Gonzalez. " Discriminative Compact Pyramids for Object and Scene Recognition." *Pattern Recognition*, vol. 45(4):1627-1636, 2012.
19. Xavi Boix, Josep Gonfaus, J. van de Weijer, Andrew Bagdanov, Joan Serrat, Jordi Gonzalez. "Harmony Potentials: Fusing Global and Local Scale for Semantic Image Segmentation." *International Journal of Computer Vision*, vol. 96(1):83-102, January 2012.
20. A. Gijsenij, Th. Gevers, J. van de Weijer. "Computational Color Constancy; Survey and Experiments." *IEEE Transaction on Image Processing*, vol. 20(9):2475-2489, 2011.
21. E. Vazquez, R. Baldrich, J. van de Weijer, M. Vanrell, "Describing Reflectance for Colour Segmentation Robust to Shadows, Highlights, and Textures." *IEEE Transactions Pattern Analysis and Machine Intelligence*, vol. 33(5):917-930, May 2011.
22. E. Vazquez, Th. Gevers, M. Lucassen, J. van de Weijer, R. Baldrich "Saliency of Color Image Derivatives: A Comparison between Computational Models and Human Perception." *Journal of the Optical Society of America A*, vol. 27(3): 1-20, March 2010.
23. A. Gijsenij, Th. Gevers, J. van de Weijer. "Generalized Gamut Mapping using Derivative Structures for Color Constancy." *International Journal of Computer Vision*, vol. 86(2-3):140-151, January 2010.
24. J. van de Weijer, C. Schmid, J. Verbeek, D. Larlus. "Learning Color Names for Real-World Applications." *IEEE Transaction on Image Processing*, vol. 18(7):1512-1524, July 2009.
25. J. van de Weijer, Th. Gevers, A. Gijsenij. "Edge-Based Color Constancy." *IEEE Transaction on Image Processing*, vol. 16(9):2207-2214, September 2007.
26. J. van de Weijer, T. Gevers, A.D. Bagdanov. "Boosting Color Saliency in Image Features." *IEEE Transactions Pattern Analysis and Machine Intelligence*, vol. 28(1):150-156, January 2006.
27. J. van de Weijer, T. Gevers and A.W.M. Smeulders. "Robust Photometric Features from the Color Tensor." *IEEE Transaction on Image Processing*, vol. 15(1):118-127, January 2006.



28. J. van de Weijer and R. van den Boomgaard. "Least Squares and Robust Estimation of Local Image Structure." *International Journal on Computer Vision*, vol. 64(2/3):143-155, September 2005.
29. J. van de Weijer, T. Gevers and J.M. Geusebroek. "Edge and Corner Detection by Photometric Quasi-Invariants." *IEEE Transactions Pattern Analysis and Machine Intelligence*, vol. 27(4):625-630, April 2005.
30. J.M. Geusebroek, A.W.M. Smeulders and J. van de Weijer. "Fast Anisotropic Gauss Filtering." *IEEE Transaction on Image Processing*, vol. 12(8): 938-943, August 2003.
31. J. van de Weijer and L.J. van Vliet and P.W. Verbeek and M. van Ginkel. "Curvature Estimation in Oriented Patterns Using Curvilinear Models Applied to Gradient Vector Fields." *IEEE Transactions Pattern Analysis and Machine Intelligence*, 23(9):1035-1042, September 2001.

#### Book Chapters and Thesis:

1. J. van de Weijer, F. Khan and M. Masana Castrillo "Interactive Visual and Semantic Image Retrieval." In A. Sappa and J. Vitria (Eds.): *Multimodal Interaction in Image and Video Applications*. Springer, Berlin, 2013.
2. T. Gevers, J. van de Weijer, H. Stokman. "Color Feature Detection: An Overview." In R. Lukac and K.N. Plataniotis (Eds.): *Color Image Processing: Methods and Applications*. CRC Press, 2006.
3. T. Brox, R. van den Boomgaard, F. Lauze, J. van de Weijer, J. Weickert, P. Mr zek, P. Kornprobst. "Adaptive structure tensors and their applications." In J. Weickert, H. Hagen (Eds.): *Visualization and Processing of Tensor Fields*. Springer, Berlin, 2006.
4. J. van de Weijer. "Color Features and Local Structure in Images.", *PhD thesis*, University of Amsterdam, 2005.

#### International Conference Publications:

1. C. Wu, L. Herranz, X. Liu, Y. Wang, J. van de Weijer, B. Raducanu, "Memory Replay GANs: learning to generate images from new categories without forgetting", In *Conference on Neural Information Processing Systems (NIPS)*, Montreal, Canada, 2018
2. A. Gonzalez-Garcia, J. van de Weijer, Y. Bengio, "Image-to-image translation for cross-domain disentanglement", In *Conference on Neural Information Processing Systems (NIPS)*, Montreal, Canada, 2018
3. M. Masana, I. Ruiz, J. Serrat, J. van de Weijer, A. M. Lopez, "Metric Learning for Novelty and Anomaly Detection", In *British Machine and Vision Conference (BMVC)*, Newcastle, UK, 2018
4. Y. Wang, C. Wu, L. Herranz, J. van de Weijer, A. Gonzalez-Garcia, B. Raducanu, "Transferring GANs: generating images from limited data", In *The European Conference on Computer Vision (ECCV)*, Munich, Germany, 2018
5. M. Buzzelli, J. van de Weijer, R. Schettini, "Learning Illuminant Estimation from Object Recognition", In *Int. Conf. on Image Processing(ICIP)*, Athens, Greece, 2018.
6. X. Liu, J. van de Weijer, A.D. Bagdanov, "Leveraging Unlabeled Data for Crowd Counting by Learning to Rank", In *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, Salt Lake City, USA, 2018
7. Y. Wang, J. van de Weijer, L. Herranz, "Mix and match networks: encoder-decoder alignment for zero-pair image translation", In *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, Salt Lake City, USA, 2018
8. X Liu, M Masana, L Herranz, J Van de Weijer, AM Lopez, AD Bagdanov, "Rotate your Networks: Better Weight Consolidation and Less Catastrophic Forgetting", In *International Conference on Pattern Recognition (ICPR)*, Beijing, China, 2018
9. L. Yu, Y. Cheng, J. van de Weijer, "Weakly Supervised Domain-Specific Color Naming Based on Attention", In *International Conference on Pattern Recognition (ICPR)*, Beijing, China, 2018

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65. M. van Ginkel, J. van de Weijer, L.J. van Vliet and P.W. Verbeek. "Curvature Estimation from Orientation Fields." In *Proceedings Scandinavian Conference on Image Analysis (SCIA)*, Kangerlussuaq, Greenland, 1999.
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### International Workshops:

1. V.O. Yazici, J. van de Weijer, A. Ramisa, "Color Naming for Multi-Color Fashion Items", In *International Workshop on Artificial Intelligence in Fashion Industry*, Napels, Italy
2. A. Alvarez-Gila, J. van de Weijer, E. Garrote, "Adversarial Networks for Spatial Context-Aware Spectral Image Reconstruction from RGB", In *ICCV Workshop Physics Based Vision meets Deep Learning*, Venezia, Italy, 2017
3. L. Lopez-Fuentes, J. van de Weijer, M. Bola os, H. Skinnemoen, "Multi-modal Deep Learning Approach for Flood Detection", In *MediaEval*, Dublin, Ireland, 2017
4. C. Gatta, A. Romero, J. Van de Weijer , "Unrolling loopy top-down semantic feedback in convolutional deep networks", In *CVPR Workshop on Deep Vision: Deep Learning for Computer Vision*, in conjunction with CVPR, Columbus, Ohio, USA, 2014.
5. Joost van de Weijer, Fahad Khan, "Fusing Color and Shape for Bag-of-Words Based Object Recognition", Invited paper at *Computational Color Imaging (CCIW 13)*, Chiba, Japan, 2013.
6. A. Gijzenij, T. Gevers, J. van de Weijer. "Color Constancy by Derivative-based Gamut Mapping.", In *Workshop Photometric Analysis for Computer Vision*, in conjuncture with ICCV, Rio de Janeiro, Brazil, 2007.
7. N. Sebe, T. Gevers, S. Dijkstra, J. van de Weijer, "Evaluation of Intensity and Color Corner Detectors for Affine invariant Salient Regions", In *Beyond Patches Workshop*, in conjunction with CVPR, New York, USA, 2006.
8. D. Knossow, J. Van de Weijer, R. Horaud, R. Ronfard, "Articulated-body Tracking through Anisotropic Edge Detection." In *Workshop on Dynamical Vision*, in conjunction with ECCV, Graz, Austria, 2006.
9. R. van den Boomgaard and J. van de Weijer. "Robust estimation of orientation for texture analysis." In *International Workshop on Texture Analysis and Synthesis* in conjunction with ECCV, Copenhagen, Denmark, 2002.

### Skills **Programming:**

C, Windows, Unix, Linux, Matlab, Mathematica

### **Languages:**

Dutch (native), English (fluent), Spanish (advanced), French (advanced), German (advanced), Catalan (basics).