

FABIO GALASSO
Curriculum Vitae
Ai fini della pubblicazione

Garching bei München
04/08/2018

Part I – General Information

Full name: Fabio Galasso
Citizenship: Italian
Website: <https://fgalasso.bitbucket.io/>
Google scholar: <http://scholar.google.de/citations?user=2gSuGBEAAAAJ>
LinkedIn: <http://de.linkedin.com/pub/fabio-galasso/32/41b/611/>
Scopus: <https://www.scopus.com/authid/detail.uri?authorId=23396411100>
Spoken languages: fluent English, Italian and Spanish;
advanced German, intermediate French

Part II – Education

10 / 2005 – 3 / 2011 **University of Cambridge, UK**
PhD in engineering
Image processing and computer vision
Research: shape-from-texture, spectral distortion analysis, 3-D
reconstruction

9 / 1998 – 5 / 2004 **RomaTre University, Italy**
Laurea in electrical engineering (Laurea quinquennale, VO)
Signal processing for telecommunications
110/110 cum laude

9 / 1993 – 7 / 1998 **Liceo Scientifico “S. Cannizzaro”, Italy**
Diploma (secondary school)
60/60

Part III – Appointments

III A – Academic appointments

- 10 / 2011 – 8 / 2014 **Max Planck Institute for Informatics, Germany**
Post-doctoral researcher
Research: computer vision, video analysis and segmentation
Advisor: Prof. Bernt Schiele
- 4 / 2009 – 3 / 2011 **University of Cambridge, UK**
Doctoral researcher
Principal co-investigator of research for the Panasonic Corporation
Research: computer vision, video analysis, clustering, people detection
Advisor: Prof. Roberto Cipolla
- 4 / 2011 – 8 / 2011 **University of Cambridge, UK**
Post-doctoral researcher
Principal co-investigator of research for the Panasonic Corporation
Research: computer vision, video analysis, clustering, people detection
Advisor: Prof. Roberto Cipolla

III B – Industry appointments

- Since 9 / 2014 **OSRAM, Germany**
Head of the Computer Vision Department, corporate R&D
- 12 / 2004 – 8 / 2005 **Telecom Italia, Italy**
Senior assistant to specialist activities
- 9 / 2003 – 5 / 2004 **Ericsson, Italy**
Intern, MA thesis preparation

Part IV – Teaching experience

IV A – Courses at universities

- 1 / 2011 – 8 / 2014 Teaching assistant of the course “High Level Computer Vision”
University of Saarland
- 3 / 2011 – 8 / 2014 Guest lecturer at the course “High Level Computer Vision”
University of Saarland
- 9 / 2009 – 3 / 2011 Guest lecturer at the course “Computer Vision”
University of Cambridge
- 9 / 2006 – 3 / 2008 Teaching assistant at the Signal and Image Processing course
University of Cambridge

IV B – Masters’ student supervision

- 9 / 2014 – 03/2015 Co-supervisor of a Master’s Student (Zornitsa Kostadinova) at
the Max Planck Institute for Informatics on “efficient image
segmentation”
- 1 / 2014 – 06/2014 Co-supervisor of a Master’s Student (Anna Khoreva) at the Max
Planck Institute for Informatics on “video segmentation”
- 9 / 2013 – 12/2013 Co-supervisor of a Master’s Student (Rahim Kadkhoda
Mohammadi) at the Max Planck Institute for Informatics on “joint
pose estimation and segmentation”

IV C – PhD student supervision

- 10/2016 – 09/2017 Co-supervisor of a PhD student (Ramireddy Devaram) at the University of Catania on “fall and activity detection and recognition”
- Since 11 / 2015 Co-supervisor of a PhD student (Irtiza Hasan) across the University of Verona and OSRAM on “activity recognition and forecast”
- Since 11 / 2015 Co-supervisor of a PhD student (Theodoros Tsesmelis) across OSRAM, the University of Verona and the Istituto Italiano di Tecnologia IIT on “lit scene understanding”

Part V - Society memberships, Awards and Honors

V A – Awards and Honors

- 2017 1st place in the DETRAC car detection competition at AVSS'17
- 2014 Outstanding Reviewer at CVPR (Awarded to 50 out of 1000)
- 2014 Outstanding Reviewer at ECCV (Awarded to 50 out of 1000)
- 2005 “A Luisa Aldobrandini” PhD scholarship
Awarded yearly by St. John’s College for the duration of the PhD studies

V B –Workshop organization and participation in school committee

- 2018 Co-organizer of the International Workshop on Video Segmentation (IWVS'18); in conj. with the European Conference on Computer Vision (ECCV)
- 2016 Co-organizer of the International Workshop on Video Segmentation (IWVS'16); in conj. with the European Conference on Computer Vision (ECCV)
- 2014 Co-organizer of the International Workshop on Video Segmentation (IWVS'14); in conj. with the European Conference on Computer Vision (ECCV)
- Since 2013 Member of committee at Int. Computer Vision Summer School (ICVSS)

V C – Conference area chairing

2017	Area Chair at ICCV International Conference (<u>ICCV</u>)
2017	Area Chair at AVSS International Conference (<u>AVSS</u>)
2019	Area Chair at VISAPP International Conference (<u>VISAPP</u>)
2017	Area Chair at VISAPP International Conference (<u>VISAPP</u>)
2015	Area Chair at VISAPP International Conference (<u>VISAPP</u>)

V D – Participations in program committee and reviewing

2015	Reviewer for Neurocomputing (NEUCOM)
2014	Reviewer for IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
2014	Program committee member of IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)
2014	Program committee member of European Conference on Computer Vision (ECCV)
2013	Program committee member of International Conference on Computer Vision (ICCV)
2013	Reviewer for IEEE Transactions On Circuits And Systems For Video Technology 2013
2011	Reviewer for Pattern Recognition (PR)

Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

Since 2015	Principal Investigator and Coordinator of the EU Marie Skłodowska-Curie ITN-EID project named SceneUnderLight Best score among all submissions in 2015, selected for press coverage (Duration 4 years, acceptance rate 2.5%)
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Part VII – Research Activities

- Video segmentation** How the pixels from a video sequence are grouped to highlight objects and scene elements. For example, given an on-board-camera street view from a driving car, this corresponds to segmenting the people, cars, bicycles as well as traffic lights, pavements, road and buildings from the video.
I have worked on various aspects of video segmentation, including learning features and graphs from the appearance and motion cues and providing novel theory for the clustering of pixels [cf. my previous work: Khoreva et al. ECCV'16, – CVPR'15, – GCPR'14; Galasso et al. CVPR'14, – ICCV'13, – ACCV'12]
- Video co-segmentation** Similarly to video segmentation, video co-segmentation targets grouping pixels from videos based on their semantics. However video co-segmentation assumes that supervision be provided as large video datasets and that objects and semantic scene parts be segmented based on their co-occurrences across the videos (similar appearance and/or motion), thus without an explicit (expensive) per-pixel annotation [cf. my previous work: Chiu et al. ACCV'16].
- Clustering** This is a most general machine learning problem, whereby elements from a data set are grouped, in the attempt to find a structure in the data. Clustering lies at the foundation of segmentation. In image and video segmentation the pixels are naturally structured into frames (images) over time. Modern approaches to clustering seek for globally optimal solutions when dealing with “Tera”-quantities of data. Previous research of mine [Galasso et al. CVPR'14, Khoreva et al. GCPR'14] has attempted to gradually group the data locally, proceeding via most certain groupings (must-link constraints), while defining the conditions for global optimality. Future research should further reduce computational complexity.
- Inference and learning in time** In the deep learning era, a number of computer vision and machine learning tasks have matured, such as detection, recognition and segmentation of objects. But all of them mostly apply to static images just. Inference in videos would naturally boost detection and recognition, and reconnect those to 3D reconstruction problems. Learning from videos would implicitly demand more data but may come with future research strategies for using the video organization, such as tracking object over time. I have addressed in previous research: the propagation of labelled frames over time to reduce the video annotation time [Badrinarayanan et al. CVPR'10]; learning from videos for the spatio-temporal clustering of pixels from people [Galasso et al. ICCV'11]; and the propagation of segmentation solutions over time, i.e. online/streaming video segmentation [Galasso et al. CVPR'14].

Part VIII – Summary of Scientific Achievements

Peer-reviewed international conferences:	22 (Google scholar), 20 (Scopus) from 2007 to 2018
All international conferences:	24 (Google scholar), 18 (Scopus) from 2007 to 2018
Total Citations (2008-2018)	576 (Google scholar), 211 (Scopus)
Average Citations per Publication	24 (Google scholar), 10.6 (Scopus)
Hirsch (H) index	10 (Google scholar), 8 (Scopus)
I10 index**	10 (Google scholar)

**** *Number of publications with at least 10 citations***

Part IX – List of All Publications

IX A – Peer-reviewed international conferences:

- 2018 Vasileios Belagiannis, Azade Farshad and Fabio Galasso
Adversarial Network Compression
In Proc. Proc. European Conference on Computer Vision (ECCV) - CEFRL Workshop
Munich, Germany, September 2018
- 2018 I. Hasan, F. Setti, T. Tsesmelis, A. Del Bue, M. Cristani, F. Galasso
"Seeing is Believing": Pedestrian Trajectory Forecasting Using Visual Frustum of Attention
In Proc. IEEE Winter Conf. on Applications of Computer Vision (WACV)
Lake Tahoe, USA, March 2018
(Acceptance rate 37%)
- 2018 I. Hasan, F. Setti, T. Tsesmelis, A. Del Bue, F. Galasso, M. Cristani
MX-LSTM: mixing tracklets and vislets to jointly forecast trajectories and head poses
In Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)
Salt Lake City, USA, June 2018
(spotlight oral presentation acceptance rate 6.6%)
- 2017 T. Tsesmelis, I. Hasan, M. Cristani, A. Del Bue, F. Galasso
LIT: a system and benchmark for light understanding
In Proc. International Conference on Computer Vision (ICCV) Workshop on Color and Photometry in Computer Vision
Venice, Italy, October 2017
- 2017 I. Hasan, T. Tsesmelis, F. Galasso, A. Del Bue, M. Cristani
Tiny Head Pose Classification by Bodily Cues
In Proc. IEEE International Conference on Image Processing (ICIP)
Beijing, China, September 2017
(acceptance rate 45%)
- 2017 Sikandar Amin and Fabio Galasso
Geometric Proposals for Faster R-CNN
In Proc. IEEE Int. Conf. on Adv. Video and Signal based Surveill. (AVSS) International Workshop on Traffic and Street Surveillance
1st place in the DETRAC car detection competition
Lecce, Italy, August 2017
- 2017 I. Hasan, T. Tsesmelis, A. Del Bue, F. Galasso, M. Cristani
Don't turn off the lights: Modelling of human light interaction in indoor environments
In Proc. International Conference on Image Analysis and Processing (ICIAP) Workshop on Social Signal Processing and Beyond
Catania, Italy, September 2017
- 2017 M. Demirkus, L. Wang, M. Eschey, H. Kästle and F. Galasso
People Detection in Fish-eye Top-views
In Proc. Int. Conference on Computer Vision Theory and Applications (VISAPP)
Porto, Portugal, February 2017

- 2016 Wei-Chen Chiu, Fabio Galasso and Mario Fritz
Towards Segmenting Consumer Stereo Videos: Benchmark, Baselines and Ensembles
In *Proc. Asian Conference on Computer Vision (ACCV)*
Taipei, Taiwan, November 2016
(acceptance rate 25%)
- 2016 Anna Khoreva, Rodrigo Benenson, Fabio Galasso, Matthias Hein and Bernt Schiele
Improved Image Boundaries for Better Video Segmentation
In *Proc. European Conference on Computer Vision (ECCV) - IWVS Workshop*
Amsterdam, The Netherlands, October 2016
- 2015 Anna Khoreva, Fabio Galasso, Matthias Hein and Bernt Schiele
Classifier Based Graph Construction for Video Segmentation
In *Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*
Boston (MA), USA, June 2015
(acceptance rate 28%)
- 2014 Fabio Galasso, Margret Keuper, Thomas Brox and Bernt Schiele
Spectral Graph Reduction for Efficient Image and Streaming Video Segmentation
In *Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*
Columbus, Ohio, June 2014
(oral presentation acceptance rate 5.75%)
- 2014 Anna Khoreva, Fabio Galasso, Matthias Hein and Bernt Schiele
Learning Must-Link Constraints for Video Segmentation based on Spectral Clustering
In *Proc. German Conference on Pattern Recognition (GCPR)*
Münster, Germany, September 2014
(acceptance rate 40%)
- 2013 Fabio Galasso, Naveen Nagaraja, T. Cardenas, Thomas Brox and Bernt Schiele
A Unified Video Segmentation Benchmark: Annotation, Metrics and Analysis
In *Proc. International Conference on Computer Vision (ICCV)*
Sydney, Australia, December 2013
(acceptance rate 28%)
- 2012 Fabio Galasso, Roberto Cipolla and Bernt Schiele
Video Segmentation with Superpixels
In *Proc. Asian Conference on Computer Vision (ACCV)*
Daejeon, Korea, November 2012
(acceptance rate 26%)
- 2011 Fabio Galasso, Masahiro Iwasaki, Kunio Nobori and Roberto Cipolla
Spatio-Temporal Clustering of Probabilistic Region Trajectories
In *Proc. International Conference on Computer Vision (ICCV)*
Barcelona, Spain, November 2011
(acceptance rate 24%)

- 2010 Vijay Badrinarayanan, Fabio Galasso and Roberto Cipolla
Label Propagation in Video Sequences
In Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)
 San Francisco (CA), USA, June 2010
 (acceptance rate 27%)
- 2009 Fabio Galasso and Joan Lasenby
Fourier Analysis and Gabor Filtering for Texture Analysis and Local Reconstruction of General Shapes
In Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)
 Miami (FL), USA, June 2009
 (acceptance rate 26%)
- 2008 Fabio Galasso and Joan Lasenby
Shape from Texture via Fourier analysis
In Proc. International Symposium on Visual Computing (ISVC)
 Las Vegas (NV), USA, November 2008
- 2007 Fabio Galasso and Joan Lasenby
Shape from Texture of Developable Surfaces via Fourier Analysis
In Proc. International Symposium on Visual Computing (ISVC)
 Lake Tahoe (NV/CA), USA, December 2007
- 2007 Fabio Galasso and Joan Lasenby
Shape from Texture: Fast Estimation of Planar Surface Orientation via Fourier Analysis
In Proc. British Machine Vision Conference (BMVC)
 University of Warwick, UK, September 2007

IX B – Other international conferences

- 2017 Yi Li, Fabio Galasso and Bernhard Siessegger
True Occupancy Detection: Smart Lighting and Deep Learning Revolution
In Smart Lighting
 Hamburg, Germany, May 2017
- 2016 Fabio Galasso and Bernhard Siessegger
True Occupancy Detection: Computer Vision meets Smart Lighting
In Smart Lighting
 Milan, Italy, May 2016
- 2015 Bernhard Siessegger and Fabio Galasso
Beyond Occupancy Detection, Smart Sensors the enablers of tomorrow's Lighting
In Smart Sensing
 Berlin, Germany, May 2015
- 2014 Thomas Brox, Fabio Galasso, Fuxin Li, James M. Rehg, Bernt Schiele
First International Workshop on Video Segmentation - Panel Discussion
In Proc. European Conference on Computer Vision (ECCV)- IWVS Workshop
 Zurich, Switzerland, September 2014

IX C – Patents

- 2016 T. Tsesmelis, I. Hasan, M. Cristani, F. Galasso, A. Del Bue, M. Eschey, H. Kästle
A method of identifying light source, corresponding system and computer program product
WO/2018/069827A1, priority date October 13th, 2016
- 2016 I. Hasan, F. Setti, T. Tsesmelis, F. Galasso, A. Del Bue, M. Cristani, M. Eschey, H. Kästle
A method of view frustum detection, corresponding system and computer program product
WO/2018/069826A1, priority date October 13th, 2016
- 2016 H. Kästle, M. Demirkus, L. Wang, M. Eschey, F. Galasso
Presence detection at stationary objects
DE102016115414A1, priority date August 19th, 2016
- 2016 H. Kästle, M. Demirkus, L. Wang, M. Eschey, F. Galasso
Training method and detection method for object recognition
WO/2017/182225, priority date April 21st, 2016
- 2010 M. Iwasaki, K. Nobori, A. Komoto, F. Galasso and R. Cipolla
Method and Apparatus for Trajectory Estimation and Method for Segmentation
US 8948448 B2, priority date March 15th, 2010
Additionally filed and granted as EP 2548174 B1, CN 102473307 B, JP 5404918 B2, WO 2011113444 A1

IX D – PhD Thesis

- 2009 Fabio Galasso
Shape-From-Texture: Spectral Distortion Analysis and 3D Reconstruction Algorithms
PhD Thesis, Submitted on 15th July 2009

