

# Curriculum Vitæ

Filippo Bergamasco

## Personal data

*Full name:* Filippo Bergamasco  
*Position:* Researcher – Italian Law n. 240/10 RTDB  
*Place and date of birth:* Verona (IT), 18th September 1985  
*Nationality:* Italian

## Affiliation

DAIS  
Università Ca' Foscari Venezia  
30172 Venice, Italy

## Biographical Sketch

Filippo Bergamasco is a researcher at the Department of Environmental Sciences, Informatics and Statistics, Ca' Foscari University of Venice, Italy. He is currently interested in high-precision photogrammetry, camera calibration, polarization and multispectral imaging, ego-motion estimation and 3D reconstruction applied to moving/nonrigid objects.

Since 2014, he collaborates with the Italian research institute CNR ISMAR in the field of 3D stereo reconstruction of sea waves from offshore platforms and vessels. He studied novel vision-based techniques to provide fast and reliable space-time estimation of sea wave spectrum, crucial to study complex phenomena such the likelihood of oceanic rogue waves or the energy transfer between atmosphere and sea.

Actively involved in technology transfer, Dr. Filippo Bergamasco has been the CEO of DigitalMetrix s.r.l and co-founder of DigitalViews s.r.l, academic spin-offs of the University of Venice. He has been involved in many privately founded computer vision projects for industry and entertainment, including structured light scanner solutions, Deep Learning applications for industrial quality inspection, interactive vision-based museum exhibitions and applications for embedded devices. Finally, He has published more than 60 technical papers in in international refereed journals and conference proceedings.

## Education

**Sept 2011 - Feb 2015**

*PhD in Computer Science*

Università Ca' Foscari Venezia

Supervisor: prof. Andrea Torsello

Thesis: "High-Accuracy Camera Calibration and Scene Acquisition"

**April 2008 - March 2011**

*Master's degree in Computer Science (summa cum laude)*

Università Ca' Foscari Venezia

Supervisor: Prof. Andrea Torsello

Thesis: "Novel Techniques and Algorithms for 3D Data Acquisition and Processing"

**September 2004 - April 2008**

*Bachelor's degree in Computer Science (summa cum laude)*

Università Ca' Foscari Venezia

Supervisor: Prof. Agostino Cortesi

Thesis: "Sistema di authoring, reporting ed erogazione multicanale di questionari per l'analisi della customer satisfaction"

**September 1999 - July 2004**

*High School diploma (94/100)*

Liceo Scientifico Giordano Bruno (Indirizzo P.N.I.)

Mestre (VE), Italy

## Visiting appointments

**November 2013 - March 2014**

**Institution:** *NICTA*

*Australia's Information and Communications Technology (ICT)*

*Research Centre of Excellence (<http://nicta.com.au/>)*

**Location:** Canberra, ACT, Australia

**Activities:** Dichromatic model recovery from Multi-spectral images

## Employment

### Academic positions

**August 2020 - Today**

*Researcher (RTDb) (Computer Science, ING-INF/05)*

DAIS, Università Ca' Foscari Venezia, Italy.

Type: art. 24, c. 3, lett. b, L. 240/10

**November 2018 - August 2020**

*Researcher (RTDa) (Computer Science, INF/01)*

DAIS, Università Ca' Foscari Venezia, Italy.

Type: art. 24, c. 3, lett. a, L. 240/10

**March 2018 - November 2018**

*Post-doc position (Computer Science)*

DAIS, Università Ca' Foscari Venezia, Italy.

Type: art. 22 L. 240/2010  
Project: Ricostruzione 3D su scala urbana

#### **November 2017 - March 2018**

##### ***Post-doc position (Computer Science)***

DAIS, Università Ca' Foscari Venezia, Italy. (Co-founded by CNR ISMAR)

Type: art. 22 L. 240/2010

Project: Registrazione e georeferenziazione multi sensore attraverso processi accoppiati su gruppi di Lie

#### **November 2016 - November 2017**

##### ***Post-doc position (Computer Science)***

DAIS, Università Ca' Foscari Venezia, Italy. (Co-founded by CNR ISMAR)

Type: art. 22 L. 240/2010

Project: Registrazione e georeferenziazione multi sensore attraverso processi accoppiati su gruppi di Lie

#### **November 2015 - November 2016**

##### ***Post-doc position (Computer Science)***

DAIS, Università Ca' Foscari Venezia, Italy. (Co-founded by CNR ISMAR)

Type: art. 22 L. 240/2010

Project: Photometric 3D Ocean Wave Reconstruction and whitecapping tracing for oceanographic measurements

#### **November 2014 - November 2015**

##### ***Post-doc position (Computer Science)***

DAIS, Università Ca' Foscari Venezia, Italy. (Co-founded by CNR ISMAR)

Type: art. 22 L. 240/2010

Project: Photometric 3D Ocean Wave Reconstruction and whitecapping tracing for oceanographic measurements

## **Industrial positions**

#### **September 2016 - Today**

##### ***CEO and co-founder***

DigitalMextrix s.r.l.

Business sector: Information Technology

Activities: R&D of structured-light scanning solutions

#### **October 2010 - Today**

##### ***Senior scientific advisor and co-founder***

DigitalViews s.r.l.

Academic Spin-off of Ca'Foscari University of Venice

Business sector: Information Technology

Activities: Technological transfer, R&D of computer vision solutions

#### **January 2010 - July 2010**

##### ***Mobile solutions consultant***

AlittleB.it s.r.l.

Business sector: Information Technology

Activities: photo-editing mobile applications consultant

**October 2008 - June 2009**

***Software developer***

Evolvenda s.r.l.

Business sector: Information Technology

Activities: Lead developer of an OpenGL-based mesh editing application.

**June 2008 - July 2008**

***Software developer***

Evolvenda s.r.l.

Business sector: Information Technology, e-government

Activities: Development of a web-based service-oriented application for customer satisfaction analysis

**October 2008 - December 2008**

***Software developer***

System5 s.r.l.

Business sector: Information Technology, e-government

Activities: Data back-end developer for the e-Gif system.

## Qualifications

- National Scientific Qualification (ASN) to function as associate professor (Professore di II fascia) in Italian Universities, academic recruitment field 09/H1 (Information processing systems), (art.16 of the law 30 December 2010, n.240) obtained on date 09/09/2019.
- National Scientific Qualification (ASN) to function as associate professor (Professore di II fascia) in Italian Universities, academic recruitment field 01/B1 (Informatics), (art.16 of the law 30 December 2010, n.240) obtained on date 11/09/2019.

## Research projects and technology transfer

### Patents

**Italian patent N.102015000082942**

*METODO ED APPARATO PER LA MISURA SPAZIALE NEL TEMPO DELLA SUPERFICIE DEL MARE DA PIATTAFORME MOBILI*

Publishing date: 15 June 2017

### Academic spin-offs

- CEO of DigitalMetrix s.r.l., start-up and academic spin-off focused on the development of structured-light based 3D scanning solutions
- Co-founder of DigitalViews s.r.l., academic spin-off focused on the development of industrial solutions based on the most innovative research results achieved by the Computer Vision group of Università Ca' Foscari Venezia

## Public funded projects

- Ca'Foscari University of Venice, *programma di Incentivi alla Ricerca InDividualE* (IRIDE). Project "Polar3D". **Role:** Principal investigator, total founding EUR 2.400,00 (2019)
- Participation to the Italian project *RITMARE*, financed by the Ministry of University and Research (MIUR), to the research units:
  1. *"Sviluppo di sistemi ottici-stereofotogrammetrici per la misura di spettri ondosi da piattaforme fisse e da navi"*
  2. *"Sistemi evoluti di rilevazione onde estreme"*

**Role:** Scientific advisor, assigned by CNR-ISMAR through an agreement between the Ca'Foscari University of Venice and CNR-ISMAR (Prot. ISMAR-CNR 13196 del 20/11/2014 e rinnovo Prot. ISMAR-CNR 8525 del 4/11/2015) (2015)
- DigitalMetrix s.r.l., POR FESR 2014-2020 AZIONE 1.1.4 "Sostegno alle attività collaborative di R&S per lo sviluppo di nuove tecnologie sostenibili, di nuovi prodotti e servizi". Project title: *"Tecniche di Deep Machine Learning per l'analisi di qualità di superfici in pietra sinterizzata"*. **Role:** Principal Investigator (DigitalMetrix s.r.l. capofila), total founding EUR 496.868 (2017)
- DigitalMetrix s.r.l., POR FESR 2014-2020 Azione 1.1.2 "Sostegno per l'acquisto di servizi per l'innovazione tecnologica, strategica, organizzativa e commerciale delle imprese". Project title: *"SmartGlass per la ricostruzione 3D di oggetti"*. **Role:** Principal Investigator (DigitalMetrix s.r.l. capofila), total founding EUR 24.000 (2017)
- DigitalMetrix s.r.l., POR FESR 2014-2020 Azione 1.4.1 "Sostegno alla creazione e al consolidamento di start-up innovative ad alta intensità di applicazione di conoscenza e alle iniziative di spin-off della ricerca". Project title: *"Visione Artificiale per l'Ispezione In Linea di Componenti Meccanici"*. **Role:** Principal Investigator (DigitalMetrix capofila), total founding EUR 40.000 (2017)
- DigitalViews s.r.l., POR FESR 2014-2020 Azione 1.1.2 "Sostegno per l'acquisto di servizi per l'innovazione tecnologica, strategica, organizzativa e commerciale delle imprese". Project title: *"Calibro ottico telecentrico bi-assiale"*. **Role:** Principal Investigator (DigitalViews s.r.l. capofila), total founding EUR 24.000 (2017)
- Regione Veneto (Direzione Sistemi Informativi). Project title: *"Sistemi collaborativi e portali di servizi ai cittadini: strumenti di orchestrazione e di misurazione della qualità"*, **Role:** participant. (2008-2009)
- Regione Veneto (Direzione Sistemi Informativi). Project title: *"eGovernment Inquiry Framework (action 7.3 of the project "Citizens iTV" – digital TV / internet integration)"*. **Role:** participant. (2006-2007)

## Privately funded projects

- Korea Institute of Science and Technology (KIOST). Project *"WAVESENSE - Multi-sensor Directional Wave Sensing"*. Total founding EUR 20.000,00, (Type: "Conto terzi", **Role:** Principal investigator) (2019)
- Participant of the project "Analysis of Stereo Wave Imaging Data for the Characterization of Rogue Waves During Extreme Wave Conditions, Including Typhoon", developed with CNR ISMAR and Korea Institute of Science and Technology (KIOST). **Role:** Co-PI. (2017)

- Pertoldi S.r.l., “*Real-time quality control for silkscreen printed dashboards*”, total funding EUR 12.500 (Type: “Conto terzi”, **Role:** Scientific advisor) (2015)
- Dynamic Technologies S.p.a., “*Production quality control for aluminium pipes*”, total funding EUR 24.860 (Type: “Conto terzi”, **Role:** Scientific advisor) (2015)
- Raco S.p.a., “*Non-contact measurement for in-line quality control*”, total funding EUR 15.000. **Role:** scientific advisor (2012)
- Telecom Italia S.p.a., “*Software-based sensor for depth measurement on mobile phones*”, total funding EUR 20.000. **Role:** director of the project (2011)
- CiGraph S.p.a., “*Unsupervised scene reconstruction from a sequence of images*”, total funding EUR 70.000. **Role:** software developer (2011)
- Luxottica S.p.a., “*Fully automated 3D scanning system for small objects*”, total funding EUR 160.000. **Role:** software developer (2009-2010)
- Luxottica S.p.a., “*Engineering distance based shape search engine*”, total funding EUR 10.000. **Role:** software developer (2008)

## Interdisciplinary projects

- First Institute of Oceanography, Qingdao (China) (FIO) and CNR-ISMAR, Venice (Italy). “*FIOSMAR Project*”. **Project goal:** Develop state-of-the-art techniques for 3D stereo reconstruction of the moving water surface (and the corresponding space-time wave spectrum) in a large wind tank. **Role:** Senior scientist (2017-2018)
- Korea Institute of Ocean Science and Technology (Korea) and CNR-ISMAR, Venice (Italy). “*Analysis of stereo wave imaging data for the characterization of rogue waves during extreme wave conditions, including typhoons*”. **Project goal:** 3D reconstruction of sea waves to characterize rogue wave events during typhoons. **Role:** Senior scientist (2017-2018)

## Teaching

### General activities

- Supervisor of a PhD student (ciclo XXXV, borsa ministeriale). Research topic: “Polarization imaging” (2019-today)
- Supervisor of a PhD student (ciclo XXXII, borsa ministeriale). Research topic: “3D structured light scanning” (2018-2020)
- Member of the Teaching Committee of the International PhD Programme in Computer Science of the Ca’Foscari University of Venice. (since 2018).
- Member of the Teaching Committee of the degree course in Computer Science of the Ca’Foscari University of Venice. (since 2018)
- “*Delegato all’orientamento in ingresso*” for the degree course in Computer Science (since 2018)

## Upper-division undergraduate courses

- *Geometric and 3D Computer Vision* (48 hours), Università Ca' Foscari Venezia (2020)
- *Computer Vision* (48 hours), Università Ca' Foscari Venezia (2019)
- *Data science (part of the Master in Digital Humanities)* (12 hours), Università Ca' Foscari Venezia (2018)
- *Computer science applications to cultural heritage* (48 hours), Università Ca' Foscari Venezia (2018)
- *Computer Vision* (30 hours), Università Ca' Foscari Venezia (2018)
- *Computer science applications to cultural heritage* (48 hours), Università Ca' Foscari Venezia (2017)
- *Data science (part of the Master in Digital Humanities)* (12 hours), Università Ca' Foscari Venezia (2018)
- *Computer Vision* (30 hours), Università Ca' Foscari Venezia (2017)
- *Data science (part of the Master in Digital Humanities)* (12 hours), Università Ca' Foscari Venezia (2017)
- *Data mining and pattern recognition (part of the Master in Digital Humanities)* (8 hours), Università Ca' Foscari Venezia (2016)

## Lower-division undergraduate courses

- *Tecnologie e applicazioni Web* (48 hours), Università Ca' Foscari Venezia (2020)
- *Lab of Web Technologies* (30 hours), Università Ca' Foscari Venezia (2019)
- *Tecnologie e applicazioni Web* (48 hours), Università Ca' Foscari Venezia (2019)
- *Tecnologie e applicazioni Web* (48 hours), Università Ca' Foscari Venezia (2018)
- *Preparatory course on mathematics* (20 hours), Università Ca' Foscari Venezia (2016)
- *Discrete Mathematics* (18 hours), Università Ca' Foscari Venezia (2015)

## Post-diploma courses

- *Data Science* (4 hours), course for high school teachers offered as part of the “*Progetto Lauree Scientifiche*” (PLS). 2019
- *JQuery Mobile and Apache Cordova* (8 hours), FTE course managed by Sive Formazione S.r.l. (2017)
- *Introduction to Node.js* (4 hours), FTE course managed by Sive Formazione S.r.l. (2017)
- *Android App Programming* (12 hours), Istituto Tecnico Industriale Statale “Max Planck” (2016)

## Teaching assistant

- *Linguaggi per la Rete* (30 hours), Università Ca' Foscari Venezia (2015)
- *Computer Vision* (20 hours), Università Ca' Foscari Venezia (2014)
- *Calcolo 2* (30 hours), Università Ca' Foscari Venezia (2013)
- *Calcolo 1* (30 hours), Università Ca' Foscari Venezia (2012)

## Thesis advisory or co-advisory

### PhD thesis

- Pistellato Mara, "*Structured-Light 3D Reconstruction and Applications*", 2020. **Supervisor**

### Master thesis

- Melanciuc Doina, "*Melting Sources Meta Library*", 2018. **Supervisor**

### Bachelor thesis

- Varoshi Romeo, "*Realizzazione di un'applicazione web mediante framework Spring*", 2020. **Supervisor**
- Schizzerotto Matteo, "*Sviluppo front-end per un sistema IoT nel mondo delle Smart Cities e degli Smart Buildings*", 2020. **Supervisor**
- Porcellato Paolo, "*Self order: Realizzazione di un'applicazione web per il settore Ho.Re.Ca*", 2020. **Supervisor**
- Bruscaignin Matteo, "*Progetto e sviluppo di una applicazione web full stack multi piattaforma*", 2020. **Supervisor**
- Gottardo Giulia, "*Realizzazione sito di e-commerce serverless con Google Cloud Firestore e Angular*", 2020. **Supervisor**
- Yeh Riccardo Xu, "*Sviluppo progetto Android in linguaggio kotlin per gestione comande di un ristorante*", 2020. **Supervisor**
- Ormitti Filippo, "*Integrazione tra Sugarcrm e LivePerson*", 2020. **Supervisor**
- Carraro Matteo, "*Web Application per la visualizzazione e previsione di PM10 e Ozono*", 2019. **Supervisor**
- Cecchini Davide, "*Sviluppo di un'applicazione web per il cheating detection nei sondaggi online*", 2019. **Supervisor**
- Jasari Besar, "*Sistema di Parcheggio Automatico*", 2019. **Supervisor**
- De Liberali Giacomo, "*Sistema di Gestione Interships*", 2018. **Supervisor**
- Dainsese Fabio, "*Una web application per la didattica della Computer Vision*", 2018. **Supervisor**



# Awards and recognitions

## Scientific awards

- Winner of the best paper award for the journal “Computers & Geosciences” (impact factor 2.56, 5-year impact factor 2.89, SJR 1.35). Manuscript title: *WASS: An open-source pipeline for 3D stereo reconstruction of ocean waves*. (2017)
- Winner of *Premi alla Ricerca 2015 categoria “dottorandi e/o neodottori di ricerca”*, issued by Università Ca’ Foscari Venezia to young researchers and PhD students (2015)
- Winner of the best research work, issued by Università Ca’ Foscari Venezia, for the scientific achievements obtained during PhD studies (2011 and 2013)

## Industrial awards

- Winner of the #WCAP start-up accelerator program issued by “TIM S.p.A” to support the initial development of structured light scanning solutions of DigitalMetrix s.r.l. (2016)
- Winner of the Working Capital award issued by “Telecom Italia S.p.A.” for innovative industrial research on real-time algorithms for the adoption of augmented reality on mobile devices (2011)
- Winner of the “IMPRESA“ grant issued by the Ministry of Economic Development for academic Spin-Offs startups with a business proposal focused on the applications of Computer Vision in industrial scenarios (2010)

## Grants and scholarships

- Winner of the comparative evaluation procedure for a total of 3 post-doc positions at Università Ca’ Foscari Venezia (2014-2017)
- PhD studies funded by national grant (2012-2014)

## Editorial boards membership

- Editor of the special issue “*Spatially Distributed Sea Wave Measurements*”. Journal “Marine Science and Engineering” IF. 1.73. (2020)
- Editor of the special issue “*Applications and Challenges of Internet of Underwater Things*”. Journal “Sensors” IF. 3.03. (2020)
- Local chair of *IAPR Joint International Workshops on Statistical techniques in Pattern Recognition (SPR 2020) and Structural and Syntactic Pattern Recognition (SSPR 2020)*.
- Member of the program committee for the “*International Aerial Archaeology Conference*” (AARG 2018), focusing on technologies for 3D reconstruction of archaeological sites, remote sensing and coastal environment monitoring. (2018)

## International conferences and workshops

- Oral presentation at the ECCV workshop “4th Workshop on Computer Vision for Art Analysis” (VISART2018). Keynote title: “Saliency-Driven Variational Retargeting for Historical Maps”. 09/09/2018
- Oral presentation at the workshop “Measuring, Modelling and Predictiong Marine Environments: State of the Art and Challenges” (THEMES 2017). Keynote title: “A new technique for sea-current estimation from 3D stereo data”. 15-17/11/2017.
- Invited speaker to the “2nd Ocean Surface Waves and Wave-Coupled Processes”, Quingdao, China. Keynote topic was the development of a stereo system for the 3D reconstruction of water surface in a water tank. 10-12/10/2017.
- Invited speaker to the “19 th Pacific Asian Marginal Seas meeting” (PAMS2017). Keynote title: “Accurate space-time observation of oceanic extreme waves using stereo wave imaging systems”. 11-13/04/2017
- Oral presentation at the workshop “Measuring, Modelling and Predictiong Marine Environments: State of the Art and Challenges” (THEMES 2016). Keynote title: “A Surface Regression Approach for Sea Temperature and Salinity Enforcing Hydrostatic Equilibrium”. 23-25/11/2016
- Oral presentation at the conference “Software and Emerging Technologies for Education, Culture, Entertainment , and Commerce” (SETECEC 2012). Keynote title: “A Practical Setup for Projection-Based Augmented Maps”. 28-29/03/2012
- Oral presentation at the conference “Software and Emerging Technologies for Education, Culture, Entertainment , and Commerce” (SETECEC 2012). Keynote title: “Learning Computer Vision Through the Development of a Camera-Trackable Game Controller”. 28-29/03/2012
- Oral presentation at the “First Joint Conf. 3D Imaging, Modeling, Processing, Visualization, Transmission” (3DIMPVT2011). Keynote title: “Image-Space Marker Detection and Recognition using Projective Invariants”. 16-19/05/2011

## Events, communication and science popularization

### Newspaper articles

- “*Osservare il mare in tre dimensioni - una nuova tecnologia italiana*”, published on the italian newspaper “*Corriere della Sera*”, 2017 February 1<sup>st</sup>  
<http://www.corriere.it/video-articoli/2017/02/01/osservare-mare-tre-dimensioni/bdf3c360-e872-11e6-b85e-cfb9b1bcef6b.shtml>

### TV appearances

- Geo&Geo, RAI 3 (Italian national public channel), Illustration of the basic principles of contact-less 3D reconstruction and presentation of a prototype scanning machine developed at Università Ca’ Foscari Venezia (2012)

## Events and exhibitions

- VenetoNight 2017 (European Commission Funded Researchers' Night), Computer Vision and 3D reconstruction demo, "*Sea-waves 3D reconstruction*", Università Ca' Foscari Venezia (2017)
- VenetoNight 2014 (European Commission Funded Researchers' Night), Computer Vision and Artificial Intelligence demo, "*Virtual Book*", Università Ca' Foscari Venezia (2014)
- VenetoNight 2013 (European Commission Funded Researchers' Night), Computer Vision and Artificial Intelligence demo, "*3D Interactive table*", Università Ca' Foscari Venezia (2013)
- VenetoNight 2012 (European Commission Funded Researchers' Night), Computer Vision and Artificial Intelligence demo, "*Vision-based non-photorealistic representation and automated hand drawing by a robotic arm*", Università Ca' Foscari Venezia (2012)
- VenetoNight 2011 (European Commission Funded Researchers' Night), Interactive technical demo, "*Projected Augmented Reality: a practical setup for public interactive augmented maps*", Università Ca' Foscari Venezia (2011)
- BBCC Expo 2011 – XV Salone dei Beni e delle Attività Culturali e del Restauro (Cultural Heritage Exposition), Interactive technical demo, "*A tangible interface for a multiuser video presentation tabletop*", Terminal Passeggeri Venezia (2011)
- Digital Week 2011 (European Commission Funded Technological Exposition), Interactive technical demo, "*Automated 3D scanning of small artifacts*", Università Ca' Foscari Venezia (2011)
- VenetoNight 2010 (European Commission Funded Researchers' Night), Interactive technical demo, "*Automatic 3D reconstruction of the human face from a series of webcam shots*", Università Ca' Foscari Venezia (2010)

## Technical Skills

- 3D reconstruction and Camera calibration
- Image processing
- Machine learning
- Computational geometry
- Linear and non-linear numerical optimization

## Software development

- Matlab<sup>®</sup> technical computing language
- C++, C, Javascript, Python, Objective-C, C# and Java programming languages (in order of proficiency)
- KERAS Deep-Learning framework
- GPGPU frameworks (Thrust, ArrayFire, Tensorflow, etc.)

- Qt and .NET framework
- Javascript-based web stacks
- CMake build system and git VCS

## Mobile/embedded applications development

- Google Android and Apple iOS
- OpenGL ES frameworks, shaders programming
- ARM programming for embedded platforms
- Embedded Linux

## Computer graphics

- OpenGL and DirectX frameworks
- Unity game engine

## Professional services

### Conferences referee

European Conference of Computer Vision (ECCV) 2018, 23rd ACM Symposium on Virtual Reality Software and Technology (VRST 2017), 26th IEEE Conference on Computer Vision and Pattern Recognition (CVPR 2013), 23th International Joint Conference on Artificial Intelligence (IJCAI 2013), 11th Int. Conf. on Information Systems and Industrial Management (CISIM 2012).

### Journals referee

IET Computer Vision; IET Image Processing; Pattern Recognition; Pattern Recognition Letters; Machine Vision and Application.

## Scientific collaborations

- *CNR ISMAR*, Italy, Dr. Alvise Benetazzo
- *Imperial College*, UK, Dr. Adrian Callaghan
- *First Institute of Oceanography (FIO)*, Qingdao, P.R. China, Prof. Dr. Fangli Quiao
- *Korea Institute Of Ocean Science and Technology (KIOST)*, Korea. Dr. Jeseon Yoo

# Bibliometrics<sup>1</sup>

H-index: 14

Number of publications: 63

Number of citations: 746 (in 526 documents)

Orcid ID: [orcid.org/0000-0001-6668-1556](https://orcid.org/0000-0001-6668-1556)

Scopus Author ID: 39261114300

## Publications

### International journals

1. Pistellato, M., Bergamasco, F., Albarelli, A., Cosmo, L., Gasparetto, A., Torsello, A. "*Robust phase unwrapping by probabilistic consensus*", *Optics and Lasers in Engineering*, vol. 121, pp. 428-440, 2019  
DOI: 10.1016/j.optlaseng.2019.05.006
2. Benetazzo, A., Cavaleri, L., Ma, H., Jiang, S., Bergamasco, F., Jiang, W., Chen, S., Qiao, F. "*Analysis of the effect of fish oil on wind waves and implications for air-water interaction studies*", *Ocean Science*, vol. 15, pp. 725-743, 2019  
DOI: 10.5194/os-15-725-2019
3. Benetazzo, A., Bergamasco, F., Yoo, J., Cavaleri, L., Kim, S.-S., Bertotti, L., Barbariol, F., Shim, J.-S. "*Characterizing the signature of a spatio-temporal wind wave field*", *Ocean Modelling*, vol. 129, pp. 104-123, 2018  
DOI: 10.1016/j.ocemod.2018.06.007
4. Benetazzo, A., Serafino, F., Bergamasco, F., Ludeno, G., Arduin, F., Sutherland, P., Sclavo, M., Barbariol, F. "*Stereo imaging and X-band radar wave data fusion: An assessment*", *Ocean Engineering*, vol. 152, pp. 346-352, 2018  
DOI: 10.1016/j.oceaneng.2018.01.077
5. Benetazzo, A., Arduin, F., Bergamasco, F., Cavaleri, L., Guimarães, P.V., Schwendeman, M., Sclavo, M., Thomson, J., Torsello, A. "*On the shape and likelihood of oceanic rogue waves*", *Scientific Reports*, vol. 7, 2017  
DOI: 10.1038/s41598-017-07704-9  
[5-year IF: 4.84]
6. Bergamasco, F., Torsello, A., Sclavo, M., Barbariol, F., Benetazzo, A. "*WASS: An open-source pipeline for 3D stereo reconstruction of ocean waves*", *Computers and Geosciences*, vol. 107, pp. 28-36, 2017  
DOI: 10.1016/j.cageo.2017.07.001  
[5-year IF: 2.81]
7. Alvise, B., Barbariol, F., Bergamasco, F., Carniel, S., Sclavo, M. "*Space-time extreme wind waves: Analysis and prediction of shape and height*", *Ocean Modelling*, vol. 113, pp. 201-216, 2017  
DOI: 10.1016/j.ocemod.2017.03.010

---

<sup>1</sup>Data according to Scopus (Author ID 39261114300). Last update November 18, 2021

8. Barbariol, F., Alves, J.-H.G.M., Benetazzo, A., Bergamasco, F., Bertotti, L., Carniel, S., Cavaleri, L., Y. Chao, Y., Chawla, A., Ricchi, A., Sclavo, M., Tolman, H. "*Numerical modeling of space-time wave extremes using WAVEWATCH III*", *Ocean Dynamics*, vol. 67, pp. 535-549, 2017  
DOI: 10.1007/s10236-016-1025-0  
[IF: 1.59]
9. Bergamasco, F., Albarelli, A., Cosmo, L., Rodola, E., Torsello, A. "*An Accurate and Robust Artificial Marker Based on Cyclic Codes*", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 38, pp. 2359-2373, 2016  
DOI: 10.1109/TPAMI.2016.2519024  
[5-year IF: 8.32]
10. Bergamasco, F., Benetazzo, A., Barbariol, F., Carniel, S., Sclavo, M. "*Multi-view horizon-driven sea plane estimation for stereo wave imaging on moving vessels*", *Computers and Geosciences*, vol. 95, pp. 105-117, 2016  
DOI: 10.1016/j.cageo.2016.07.012  
[5-year IF: 2.81]
11. Benetazzo, A., Barbariol, F., Bergamasco, F., Torsello, A., Carniel, S., Sclavo, M. "*Stereo wave imaging from moving vessels: Practical use and applications*", *Coastal Engineering*, vol. 109, pp. 114-127, 2016  
DOI: 10.1016/j.coastaleng.2015.12.008  
[5-year IF: 3.404]
12. Albarelli, A., Cosmo, L., Bergamasco, F., Sartoretto, F., Torsello, A. "*A 5 degrees of freedom multi-user pointing device for interactive whiteboards*", *Pattern Analysis and Applications*, vol. 19, pp. 237-250, 2016  
DOI: 10.1007/s10044-015-0457-3  
[IF: 1.22]
13. Albarelli, A., Cosmo, L., Bergamasco, F., Sartoretto, F. "*Phase-based spatio-temporal interpolation for accurate 3D localization in camera networks*", *Pattern Recognition Letters*, vol. 63, pp. 1-8, 2015  
DOI: 10.1016/j.patrec.2015.05.014  
[5-year IF: 2.16]
14. Sclavo, M., Barbariol, F., Bergamasco, F., Carniel, S., Benetazzo, A. "*Italian seas wave extremes: a preliminary assessment*", *Rendiconti Lincei*, vol. 26, pp. 25-35, 2015  
DOI: 10.1007/s12210-015-0380-y
15. Leckler, F., Ardhuin, F., Peureux, C., Benetazzo, A., Bergamasco, F., Dulov, V. "*Analysis and interpretation of frequency-wavenumber spectra of young wind waves*", *Journal of Physical Oceanography*, vol. 45, pp. 2484-2496, 2015  
DOI: 10.1175/JPO-D-14-0237.1  
[IF: 3.13]
16. Benetazzo, A., Barbariol, F., Bergamasco, F., Torsello, A., Carniel, S., Sclavo, M. "*Observation of extreme sea waves in a space-time ensemble*", *Journal of Physical Oceanography*, vol. 45, pp. 2261-2275, 2015  
DOI: 10.1175/JPO-D-15-0017.1  
[IF: 3.13]

17. Bergamasco, F., Albarelli, A., Torsello, A. "*Pi-Tag: A fast image-space marker design based on projective invariants*", Machine Vision and Applications, vol. 24, pp. 1295-1310, 2013  
DOI: 10.1007/s00138-012-0469-6  
[5-year IF: 2.06]
18. Albarelli, A., Bergamasco, F., Celentano, A., Cosmo, L., Torsello, A. "*Using multiple sensors for reliable markerless identification through supervised learning*", Machine Vision and Applications, vol. 24, pp. 1539-1554, 2013  
DOI: 10.1007/s00138-013-0492-2  
[5-year IF: 2.06]
19. Rodolà, E., Albarelli, A., Bergamasco, F., Torsello, A. "*A scale independent selection process for 3D object recognition in cluttered scenes*", International Journal of Computer Vision, vol. 102, pp. 129-145, 2013  
DOI: 10.1007/s11263-012-0568-x  
[5-year IF: 5.18]
20. Bergamasco, F., Albarelli, A., Torsello, A. "*A graph-based technique for semi-supervised segmentation of 3D surfaces*", Pattern Recognition Letters, vol. 33, pp. 2057-2064, 2012  
DOI: 10.1016/j.patrec.2012.03.015  
[5-year IF: 2.16]
21. Bergamasco, F., Albarelli, A., Torsello, A. "*Semi-supervised segmentation of 3D surfaces using a weighted graph representation*", Lecture Notes in Computer Science (including sub-series Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), vol. 6658 LNCS, pp. 225-234, 2011  
DOI: 10.1007/978-3-642-20844-7\_23

## Book chapters

1. Albarelli, A., Bergamasco, F., Torsello, A. "*Learning computer vision through the development of a camera-trackable game controller*", Computer Vision: Concepts, Methodologies, Tools, and Applications, pp. 1893-1903, 2018  
DOI: 10.4018/978-1-5225-5204-8.ch080
2. Albarelli, A., Cosmo, L., Bergamasco, F. "*Practical metrics for error assessment with interactive museum installations*", Handbook of Research on Interactive Information Quality in Expanding Social Network Communications, pp. 70-83, 2014  
DOI: 10.4018/978-1-4666-7377-9.ch005
3. Bergamasco, F., Albarelli, A., Torsello, A. "*A practical setup for projection-based augmented maps*", Advanced Research and Trends in New Technologies, Software, Human-Computer Interaction, and Communicability, pp. 13-22, 2013  
DOI: 10.4018/978-1-4666-4490-8.ch002
4. Albarelli, A., Bergamasco, F., Torsello, A. "*Learning computer vision through the development of a camera-trackable game controller*", Advanced Research and Trends in New Technologies, Software, Human-Computer Interaction, and Communicability, pp. 154-163, 2013  
DOI: 10.4018/978-1-4666-4490-8.ch015

## Refereed conference papers

1. Bergamasco, F., Traviglia, A., Torsello, A. "*Saliency-Driven Variational Retargeting for Historical Maps*", Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), vol. 11130 LNCS, pp. 617-630, 2019  
DOI: 10.1007/978-3-030-11012-3\_47
2. Pistellato, M., Bergamasco, F., Albarelli, A., Torsello, A. "*Robust cylinder estimation in point clouds from pairwise axes similarities*", ICPRAM 2019 - Proceedings of the 8th International Conference on Pattern Recognition Applications and Methods, pp. 640-647, 2019
3. Pistellato, M., Bergamasco, F., Albarelli, A., Cosmo, L., Gasparetto, A., Torsello, A. "*Stochastic phase estimation and unwrapping*", ICPRAM 2019 - Proceedings of the 8th International Conference on Pattern Recognition Applications and Methods, pp. 200-209, 2019
4. Pistellato, M., Cosmo, L., Bergamasco, F., Gasparetto, A., Albarelli, A. "*Adaptive Albedo Compensation for Accurate Phase-Shift Coding*", Proceedings - International Conference on Pattern Recognition, vol. 2018-August, pp. 2450-2455, 2018  
DOI: 10.1109/ICPR.2018.8545465
5. Pistellato, M., Bergamasco, F., Cosmo, L., Gasparetto, A., Ressi, D., Albarelli, A. "*Neighborhood-Based Recovery of Phase Unwrapping Faults*", Proceedings - International Conference on Pattern Recognition, vol. 2018-August, pp. 2462-2467, 2018  
DOI: 10.1109/ICPR.2018.8546052
6. Gasparetto, A., Ressi, D., Bergamasco, F., Pistellato, M., Cosmo, L., Boschetti, M., Ursella, E., Albarelli, A. "*Cross-Dataset Data Augmentation for Convolutional Neural Networks Training*", Proceedings - International Conference on Pattern Recognition, vol. 2018-August, pp. 910-915, 2018  
DOI: 10.1109/ICPR.2018.8545812
7. Bergamasco, F., Cosmo, L., Gasparetto, A., Albarelli, A., Torsello, A. "*Parameter-Free Lens Distortion Calibration of Central Cameras*", Proceedings of the IEEE International Conference on Computer Vision, vol. 2017-October, pp. 3867-3875, 2017  
DOI: 10.1109/ICCV.2017.415
8. Bergamasco, F., Torsello, A., Robles-Kelly, A. "*Spectral dichromatic parameter recovery from two views via total variation hyper-priors*", Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), vol. 10116 LNCS, pp. 317-333, 2017  
DOI: 10.1007/978-3-319-54407-6\_21
9. Pistellato, M., Albarelli, A., Bergamasco, F., Torsello, A. "*Robust joint selection of camera orientations and feature projections over multiple views*", Proceedings - International Conference on Pattern Recognition, vol. 0, pp. 3703-3708, 2016  
DOI: 10.1109/ICPR.2016.7900210
10. Bergamasco, F., Cosmo, L., Schiavinato, M., Albarelli, A., Torsello, A. "*Dense multi-view homography estimation and plane segmentation*", Proceedings - International Conference on Pattern Recognition, vol. 0, pp. 3739-3744, 2016  
DOI: 10.1109/ICPR.2016.7900216



11. Cosmo, L., Albarelli, A., Bergamasco, F., Torsello, A., Rodola, E., Cremers, D. "*A game-theoretical approach for joint matching of multiple feature throughout unordered images*", Proceedings - International Conference on Pattern Recognition, vol. 0, pp. 3715-3720, 2016  
DOI: 10.1109/ICPR.2016.7900212
12. Bergamasco, F., Albarelli, A., Cosmo, L., Torsello, A., Rodolà, E., Cremers, D. "*Adopting an unconstrained ray model in light-field cameras for 3D shape reconstruction*", Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition, vol. 07-12-June-2015, pp. 3003-3012, 2015  
DOI: 10.1109/CVPR.2015.7298919
13. Pistellato, M., Bergamasco, F., Albarelli, A., Torsello, A. "*Dynamic optimal path selection for 3D Triangulation with multiple cameras*", Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), vol. 9279, pp. 468-479, 2015  
DOI: 10.1007/978-3-319-23231-7\_42
14. Albarelli, A., Cosmo, L., Bergamasco, F., Gasparetto, A. "*Objective and subjective metrics for 3D display perception evaluation*", ICPRAM 2015 - 4th International Conference on Pattern Recognition Applications and Methods, Proceedings, vol. 2, pp. 309-317, 2015
15. Cosmo, L., Albarelli, A., Bergamasco, F. "*A low cost tracking system for position-dependent 3D visual interaction*", Proceedings of the Workshop on Advanced Visual Interfaces AVI, pp. 351-352, 2014  
DOI: 10.1145/2598153.2600030
16. Cosmo, L., Albarelli, A., Bergamasco, F., Torsello, A. "*Design and Evaluation of a Viewer-Dependent Stereoscopic Display*", Proceedings - International Conference on Pattern Recognition, pp. 2861-2866, 2014  
DOI: 10.1109/ICPR.2014.493
17. Bergamasco, F., Cosmo, L., Albarelli, A., Torsello, A. "*Camera calibration from coplanar circles*", Proceedings - International Conference on Pattern Recognition, pp. 2137-2142, 2014  
DOI: 10.1109/ICPR.2014.372
18. Albarelli, A., Cosmo, L., Bergamasco, F., Torsello, A. "*High-coverage 3D scanning through online structured light calibration*", Proceedings - International Conference on Pattern Recognition, pp. 4080-4085, 2014  
DOI: 10.1109/ICPR.2014.699
19. Barbariol, F., Benetazzo, A., Bergamasco, F., Carniel, S., Sclavo, M. "*Stochastic space-time extremes of wind sea states: Validation and modeling*", Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering - OMAE, vol. 8B, 2014  
DOI: 10.1115/OMAE2014-23997
20. Benetazzo, A., Bergamasco, F., Barbariol, F., Torsello, A., Carniel, S., Sclavo, M. "*Towards an operational stereo system for directional wave measurements from moving platforms*", Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering - OMAE, vol. 8B, 2014  
DOI: 10.1115/OMAE2014-24024

21. Bergamasco, F., Albarelli, A., Rodola, E., Torsello, A. "*Can a fully unconstrained imaging model be applied effectively to central cameras?*", Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition, pp. 1391-1398, 2013  
DOI: 10.1109/CVPR.2013.183
22. Albarelli, A., Bergamasco, F., Torsello, A. "*Rigid and non-rigid shape matching for mechanical components retrieval*", Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), vol. 7564 LNCS, pp. 168-179, 2012  
DOI: 10.1007/978-3-642-33260-9-14
23. Bergamasco, F., Cosmo, L., Albarelli, A., Torsello, A. "*A robust multi-camera 3D ellipse fitting for contactless measurements*", Proceedings - 2nd Joint 3DIM/3DPVT Conference: 3D Imaging, Modeling, Processing, Visualization and Transmission, 3DIMPVT 2012, pp. 168-175, 2012  
DOI: 10.1109/3DIMPVT.2012.22
24. Bergamasco, F., Albarelli, A., Torsello, A., Favaro, M., Zanuttigh, P. "*Pairwise similarities for scene segmentation combining color and depth data*", Proceedings - International Conference on Pattern Recognition, pp. 3565-3568, 2012
25. Albarelli, A., Bergamasco, F., Rossi, L., Vascon, S., Torsello, A. "*A stable graph-based representation for object recognition through high-order matching*", Proceedings - International Conference on Pattern Recognition, pp. 3341-3344, 2012
26. Rodola, E., Bronstein, A.M., Albarelli, A., Bergamasco, F., Torsello, A. "*A game-theoretic approach to deformable shape matching*", Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition, pp. 182-189, 2012  
DOI: 10.1109/CVPR.2012.6247674
27. Bergamasco, F., Albarelli, A., Torsello, A. "*Image-space marker detection and recognition using projective invariants*", Proceedings - 2011 International Conference on 3D Imaging, Modeling, Processing, Visualization and Transmission, 3DIMPVT 2011, pp. 381-388, 2011  
DOI: 10.1109/3DIMPVT.2011.55
28. Albarelli, A., Rodolà, E., Bergamasco, F., Torsello, A. "*A non-cooperative game for 3D object recognition in cluttered scenes*", Proceedings - 2011 International Conference on 3D Imaging, Modeling, Processing, Visualization and Transmission, 3DIMPVT 2011, pp. 252-259, 2011  
DOI: 10.1109/3DIMPVT.2011.39
29. Bergamasco, F., Albarelli, A., Rodolà, E., Torsello, A. "*RUNE-Tag: A high accuracy fiducial marker with strong occlusion resilience*", Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition, pp. 113-120, 2011  
DOI: 10.1109/CVPR.2011.5995544

(The following notices are in Italian language and are required by law in Italy)

Il sottoscritto dichiara che quanto sopra dichiarato corrisponde a verità ai sensi degli artt. 46 e 47 del D.P.R. n. 445/2000 e consapevole delle sanzioni penali, nel caso di dichiarazioni non veritiere, di formazione o uso di atti falsi, richiamate dall'art. 76 del D.P.R. 445 del 28 dicembre 2000.

Autorizzo il trattamento dei dati personali contenuti nel mio curriculum vitae in base art. 13 del D. Lgs. 196/2003

Data di oggi: November 18, 2021  
Firma (Filippo Bergamasco)