

Irene Amerini, Ph.D.

Curriculum Vitae – Updated: 01 June, 2018

Personal details

Spoken Languages: Italian (native), English (fluent)

Research Interests

Multimedia content security technologies, secure media and multimedia forensics, digital image processing.

Research Profile

I am currently a Visit Fellow at School of Computing and Mathematics, Charles Sturt University, Wagga Wagga, Australia supported by the Endeavour Scholarship & Fellowship program offered by the Australian Government - Department of Education and Training.

Previously I worked as postdoctoral researcher at Image Forensics and Security Lab, Media Integration and Communication Center, University of Florence (Italy). I received my Ph.D. in Computer Engineering and Telecommunication in 2011 from the University of Florence. I also spent a period at the Digital Data Embedding Laboratory, Department of Electrical and Computer Engineering, Binghamton University (US) in 2010. I have published around 40 papers in the most prestigious journals and conferences in image processing, multimedia and information forensics and security. My papers have been cited more than 1000 times (H-index 13) and I received the best paper award at the “The International Conference on Forensic Applications and Techniques in Telecommunications, Information and Multimedia” (eForensics) in 2009 and the highly cited research award from Signal Processing: Image Communication Journal in 2016. I have actively been participating in various roles in several EU FP7 research projects and a number of national projects. I’m currently a member of the IEEE Forensics and Security Technical Committee and in 2018 I received the National Academic Qualification as Associate Professor (09/H1, 09/F2) in March 2018. My research interests are focused on digital image processing, multimedia content security technologies, secure media and machine learning for image and video forensics.

Education

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| Università degli Studi di Firenze , Italia | 2011/04 |
| Ph.D. in Computer Engineering, Multimedia and Telecommunication | |
| Thesis: “Image Forensics: source identification and tampering detection”. | |
| Advisors: Prof. Vito Cappellini, Dr. Roberto Caldelli, Prof. Alessandro Piva | |
| Binghamton University , State University of New York 4400, NY 13902 US | 2010/04-2010/10 |
| Dep. of Electrical and Comp. Engineering, DDE Lab | |
| Visiting Scholar, Advisor: Prof. Jessica Fridrich | |
| Università degli Studi di Firenze , Italia | 2006/04 |
| Laurea Degree (5 years degree, M.S. equivalent) in Computer Engineering | |

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Academic Appointments

- Charles Sturt University**, Australia - School of Computing and Mathematics, 2018/02 – 2018/06
Faculty of Business, Justice and Behavioural Science
Visiting Fellow on Endeavour Fellowship, Australia Department of Education and Training
Advisor: Prof. Chang-Tsun Li
- Università degli Studi di Firenze**, Italy - Media Integration and Communication Center 2015/02 – 2018/01
Postdoctoral Researcher – A.R. L.240/2010
Working on the study and development of new techniques for multimedia security.
- Università degli Studi di Firenze**, Italy - Media Integration and Communication Center 2011/02 – 2015/01
Postdoctoral Researcher – A.R. L.449/1997
Working on the study and development of techniques for the management and the security of multimedia data.
- Università degli Studi di Firenze**, Italy - Media Integration and Communication Center 2008/01 – 2010/12
PhD student – MIUR fellowship (36 months)
Working on multimedia forensics: source identification and tampering detection.
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Awards, Scholarships and Fellowships

2018: **National Academic Qualification as Associate Professor** of *Telecommunication* (09/F2 – ASN 2016) and *Computer Engineering and Information Processing Systems* (09/H1 – ASN 2016).

2018: **Endeavour Research Fellowship Award** (Australian Government, Department of Education and Training) at School of Computing and Mathematics, Faculty of Business, Justice and Behavioural Science, Charles Sturt University, Australia.

2017: **Highly Cited Paper Web of Science** (2017) “A SIFT-based forensic method for copy-move attack detection and transformation recovery”. *IEEE Transactions on Information Forensics and Security*, 6(3):1099–1110, 2011

2016: **Highly Cited Research Award** in Signal Processing: Image Communication with the paper: “Copy-Move Forgery Detection and Localization by Means of Robust Clustering with J-Linkage” [A12].

2015-present: **Postdoctoral Research Fellowship**, Media Integration and Communication Center (MICC), Università degli Studi di Firenze, Italy.

2011-2015: **Postdoctoral Research Fellowship**, Media Integration and Communication Center (MICC), Università degli Studi di Firenze, Italy.

2008-2010: **MIUR scholarship**, PhD student in Computer Engineering, Multimedia and Telecommunication at University of Florence.

2006-2007: **Research Grant** on the development of a MHP browser for the digital terrestrial television offered by CSP (ICT innovation), Turin, Italy.

2009: **Best paper award**, The International Conference on Forensic Applications and Techniques in Telecommunications, Information and Multimedia (eForensics), Adelaide, Australia.

Participation in Research Projects

ESPRESS (Smartphone identification based on on-board sensors for security applications)

2017-2018 co-funded by Fondazione Cassa di Risparmio di Firenze (Italy) within the Scientific Research and Technological Innovation framework.

Role: **Task leader**

SECURE!

funded by the POR CreO FESR 2007-2013 programme of the Tuscany Region (Italy). 2013-2015.

The aim of the project is to study technologies and instruments to prevent and manage emergency events and situations related to public security

Role: **Task leader**

SMARTVINO "Wine multimedia information through the use of smart-tag" funded by the PRAF 2012-2015-1.2.e programme of the Tuscany Region (Italy), from 2015 to 2016

Role: **Task leader**

Framework agreement between Multimedia Integration and Communication Center of the University of Florence and the **Scientific and Technology Pole of the Italian Presidency of the Council of Ministers**, from 2014 – present

Research and development activities in the field of image forensics.

Role: **Technical coordinator**.

3D-COFORM "Tools and Expertise for 3D Collection Formation" FP7/2007-2013, from 2008 to 2012.

Role: **Scientific investigator**.

REWIND "Reverse engineering of audio-visual content data FP7 - FET programme, from 2011 to 2014.

Role: **Scientific investigator**.

Teaching Experience

Professor, AY 2018 PhD Program in Information Engineering

Course: "Image and Video Forensics: fundamentals and applications for authenticity verification" (3CFU)

Professor, AY 2010/11: M.S. Sport Management, Faculty of Medicine, Univ. of Florence, Firenze, Italy

Course: "Multimedia Applications"

Graduate and Undergraduate Students co-advised:

- Matteo Castelli, A.A. 2007/2008 (Univ. of Florence)
- Andrea Novi, A.A. 2010/2011 (Univ. of Florence)
- Matteo Innocenti, A.A. 2010/2011 (Univ. of Florence)
- Luca Del Tongo, A.A. 2011/2012 (Univ. of Florence)
- Bruno Bertini, A.A. 2012/2013 (Univ. of Florence)
- Alessio Melani, A.A. 2014/2015 (Univ. of Florence)
- Moreno Niccolai, A.A. 2014/2015 (Univ. of Florence)

International Collaborations and Research Visits

- **Charles Sturt University**, Wagga Wagga, NSW, Australia, from February 2018 to June 2018, Visiting Fellow working with Prof. Chang Tsun Li
 - **The University of Adelaide**, Adelaide, Australia February 2018 Collaborator: Dr. M. Sorell
 - **The University of Sydney**, Sydney, Australia April 2018 Collaborator: Prof. Dong Xu
 - **Binghamton University**, Binghamton (NY) US, from April 2010 to October 2010
Visiting Scholar; working with Prof. J. Fridrich and Dr. M. Goljan
 - **European Commission, Joint Research Centre**, Ispra, Italy, collaborator: Dr. Gianmarco Baldini
 - **Scientific and Technological Department, Scientific and Technology Pole of the Italian Presidency of the Council of Ministers**
 - **Politecnico di Milano**, Milan, Italy, collaborators: Prof. S. Tubaro, Dr. Paolo Bestagini, Dr. Luca Bondi
 - **University of Siena**, Siena, Italy, working with Prof. Mauro Barni, Dr. Andrea Costanzo
 - **Università degli studi Roma Tre**, Roma, Italy, collaborators: Dr. Marco Carli, Dr.ssa Federica Battisti
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Professional Activities / Academic Service

- **Lead organizer** special session “Image Forensics Technologies”, in junction with the International Symposium on Communications, Control, and Signal Processing 2-4 May 2012, Roma, Italy.
- **Session Chair** 5th International Conference on Web Information Systems and Technologies, Lisboa, Portugal, March, 2009.
- **Technical Program Committee:**
 - Workshop on Multimedia Forensics and Security, MFSec 2017 at ICMR 2017
 - International Conference on Image Analysis and Processing (ICIAP) 2017
 - International Conference on Mechanics and Mechatronics, ICMM2017
 - Workshop on Web Multimedia Verification (#WeMuV2015) co-located with ICME (IEEE International Conference on Multimedia and Expo) 2015, Torino, Italy, 29 June 2015;
 - Women in Computer Vision 2018 (IEEE Computer Vision and Pattern Recognition Workshops)
 - 26th European Signal Processing Conference (EUSIPCO 2018), Rome Italy
 - IEEE International Workshop on Information Forensics and Security (WIFS) 2018
- **Reviewer for International Conferences** (selection):
IEEE International Conference on Multimedia & Expo (ICME), IEEE International Conference on Image Processing (ICIP), International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Workshop on Information Forensics and Security (WIFS), International Conference on Computer and Communication Technology (ICCT), International Workshop on Digital-Forensics and Watermarking (IWDW), International Conference on Image Analysis and Processing (ICIAP), WIFS, EUSIPCO
- **Reviewer for International Journals** (selection):
 - o IEEE Transactions on Information and Forensics Security,
 - o IEEE Transaction Image Processing,
 - o IEEE Transactions on Circuits and Systems for Video Technology,
 - o IEEE Transaction in Multimedia,
 - o Multimedia Tools and Applications,
 - o IEEE Signal Processing Letter, Pattern Recognition Letter,
 - o Signal Processing: Image Communication,
 - o Forensic Science International,

- Journal of Electronic Imaging (Elsevier)
 - Digital Signal Processing (Elsevier),
 - Expert System with Applications,
 - EURASIP Journal on Video Processing,
 - Electronic Imaging,
 - Mathematical Problems in Engineering.
- **Editorial Board:** GSL Journal of Forensic Research
- **Guest Editor:**
- Special Issue “Image and Video Forensics for Social Media Analysis” in EURASIP Journal on Image and Video Processing 2017;
 - Special Issue “Image authentication through forensic and watermarking based technologies” in Journal of Imaging 2017;
 - Special Issue “Deep Learning in Image and Video Forensics” in Signal Processing: Image Communication (ELSEVIER), 2017.

Speaker and Tutorial at International Conferences

- **Tutorial** “Image and Video Forensics: Fundamentals on Image Source Identification and Authenticity Verification” **DFRWS EU 2018**, Firenze 21 March 2018
- “Robust smartphone fingerprint by mixing device sensors features for mobile strong authentication”, **Media Watermarking, Security, and Forensics at IS&T Symposium on Electronic Imaging**, San Francisco (US), 15-17 February 2016.
- “SIFT match removal and keypoint preservation through dominant orientation shift”, **European Signal Processing Conference (EUSIPCO)**, 2015.
- “Splicing Forgeries Localization through the Use of First Digit Features”, **IEE Workshop on Information Forensics and Security (WIFS)** 2014, Atlanta (US), 3-5 December 2014.
- “SIFT keypoint removal and injection for countering matching-based Image Forensics”, **IH&MMSec’13 ACM Information Hiding and Multimedia Security Workshop**, Montpellier, France, 17-19 June 2013.
- “On the effectiveness of local warping against SIFT-based copy-move detection”, **V International Symposium on Communications, Control & Signal Processing (ISCCSP12)**, Rome, Italy, May 2-4 2012.
- “An analysis on attacker actions in fingerprint-copy attack in source camera identification”, **Workshop on Information Forensics & Security (WIFS 2011)**, Foz do Iguacu, Brazil, November 29th-December 2nd, 2011.
- “Analysis of Denoising Filters for Photo Response Non Uniformity Noise Extraction in Source Camera Identification”, **16th Int. Conference on Digital Signal Processing**, Santorini Greece, 5-7 July, 2009.
- “Distinguishing between camera and scanned images by means of frequency analysis”, Proceedings of e-Forensics 2009: **The International Conference on Forensic Applications and Techniques in Telecommunications, Information and Multimedia** [Best Paper Award], Adelaide, Australia, 19-21 January, 2009.
- “Integration between Digital Terrestrial Television and Internet by means of a DVB-MHP web browser”, **5th International Conference on Web Information Systems and Technologies (WEBIST)**, Lisboa, Portugal, 23-26 March, 2009.

Invited Talks and Seminars

- **Invited Seminar** April 2018: "Image and video forensics: new trends in image forgery detection and source identification" School of Electrical and Electronic Engineering, **The University of Sydney**, Australia
 - **Invited Seminar** February 2018: "Image and video forensics: new trends in image forgery detection and source identification" School of Electrical and Electronic Engineering, **The University of Adelaide**, Australia
 - **Invited Seminar** May 2018: "Image and video forensics" School of Computing and Mathematics, **Charles Sturt University**, Australia
 - **Invited Seminar** September 2017: "Image and Video Security and Forensics" University of Verona, Italy
 - **Panelist** February 2014: "Image forensics in the real world" at GTTI thematic meeting on Multimedia Signal Processing 2014, Forni di Sopra (UD), Italy.
 - **Invited Speaker** February 2014: "CNR on air: artificial vision and images analysis" CNR Pisa and Punto Radio
 - **Demo** March 2013: "Attacking SIFT-based forensics tools designed for copy-move forgery detection", presented at GTTI thematic meeting on Multimedia Signal Processing 2013, Vezza d'Oglio (BS), Italy.
 - **Speaker** May 2012: "FlnDinG: Forensic tool for forgery Detection in digital Images", Confindustria Firenze at "GTTI for the future multinational enterprises meet young Italian ICT researchers".
 - **Seminar** September 2011: University of Florence and CNIT, Forensic@Florence: "Improving copy-move attack localization by means of various clustering methods".
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Professional Memberships and Affiliations

- **IEEE Information Forensics and Security Technical Committee** (IEEE IFS-TC) 2018-2020
 - IFS-TC workshops/challenges subcommittee
 - **IEEE Membership** and **IEEE Signal Processing Society Membership**, from 2017
 - **CNIT affiliation** (Consorzio Internazionale Universitario delle Telecomunicazioni), Italy, from 2011-present
 - **MMSG GTTI affiliation** (Telecommunication and Information Technology Group), Italy, from 2013 – present
 - **EURASIP Member** (European Association for Signal Processing), 2016-2018
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Correlated Activities

Forensic technical consulting activities for private citizen, law enforcement and in collaboration with professional in the sector from 2014 to present.

Publicly Available Software, Datasets

SiftForensic: “Copy-move forgery detection using SIFT features”

This package contains the Matlab implementation of the copy-move detection algorithm presented in IEEE-TIFS’11 [A13]. It is widely used as a baseline for copy-move detection (our related papers have been cited around 400 times). The source code is on GitHub: <http://github.com/lambertoballan/sift-forensic>.

MICC-CMFD Datasets: We collected the first large-scale datasets for copy-move forgery detection, i.e. MICC-F200, MICC-F2000 and MICC-F600. Our datasets are widely used as benchmarks for CMFD algorithms. <http://lci.micc.unifi.it/labd/2015/01/copy-move-forgery-detection-and-localization/>

FORimage App for Android OS to determine the authenticity of an image or a video discovering the possible manipulations through the use of a smartphone.

social_UCID and **social_PUBLIC** datasets: datasets used in IEEE-TIFS’17 [A3]. <http://lci.micc.unifi.it/labd/2015/01/trustworthiness-and-social-forensic/>

Press and Media Coverage

Our work on detecting copy-move image forgeries using computer vision [A12, A13, C15] had received a lot of attention from the Italian press and television.

- “Foto del reporter licenziato da Ap: l’analisi del ritocco”, La Repubblica, January 2014.
- “Ecco come si truca un’immagine: l’esperto spiega il fotoritocco del Pulitzer” – La Repubblica Tecnologia, January 2014.
- “Così si truca l’immagine” – Corriere Fiorentino, Corriere della Sera, January 2014.
- “La foto del Pulitzer era ritoccata- Il falso smascherato da una ricercatrice grossetana”, Il Tirreno, January 2014.
- “LCI-MICC - Image Forensics e sicurezza multimediale”, RTV38, January 2014.
- “I cacciatori di ritocchi: sparita la torre di Palazzo Vecchio”, Il Tirreno, February 2014.

Publications

Bibliometric indices

h-index: 13 (Google Scholar), 12 (Scopus)

Number of citations: 1048 (Google Scholar), 678 (Scopus)

Selected publications

These are the **key publications** that are selected to **represent my research** activities:

- I. Amerini, L. Ballan, R. Caldelli, A. Del Bimbo, G. Serra. "A SIFT-based forensic method for copy-move attack detection and transformation recovery". IEEE Transactions on Information Forensics and Security, 6(3):1099–1110, Sep 2011 DOI:10.1109/TIFS.2011.2129512
 - o [IF:4.332, Class:1 – Cited by:477] Highly Cited Paper Web of Science (2017)
 - o Media coverage (Italian press): see "Press and Media coverage" section (pag.7)
- I.Amerini, R.Ballan, R.Caldelli, A.Del Bimbo, L.Del Tongo, G.Serra, "Copy-move forgery detection and localization by means of robust clustering with J-Linkage", Signal Processing: Image Communication, Volume 28, Issue 6, July 2013, Pages 659-669, ISSN 0923-5965, <http://dx.doi.org/10.1016/j.image.2013.03.006>
 - o [IF: 2.244, Class:2 - Cited by 130];
 - o Highly Cited Research in Signal Processing: Image Communication awarded on December 2016.
- I. Amerini, R. Becarelli, R. Caldelli, A. Melani and M. Niccolai, "Smartphone Fingerprinting Combining Features of On-Board Sensors," in IEEE Transactions on Information Forensics and Security, vol. 12, no. 10, pp. 2457-2466, Oct. 2017.doi: 10.1109/TIFS.2017.2708685
 - o [IF: 4.332, Class:1 - Cited by 5]
- R. Caldelli, R. Becarelli and I. Amerini, "Image Origin Classification Based on Social Network Provenance," in IEEE Transactions on Information Forensics and Security, vol. 12, no. 6, pp. 1299-1308, June 2017. doi: 10.1109/TIFS.2017.2656842
 - o [IF: 4.332, Class:1 Cited by 12]
- I.Amerini, T. Uricchio, L. Ballan, R. Caldelli, "Localization of JPEG double compression through multi-domain convolutional neural networks", Media Forensics Workshop at CVPR 2017, July Honolulu, Hawaii 2017. [Cited by 5]

Full publications list

— Journal Articles —

- [A1] I. Amerini, R. Becarelli, R. Caldelli, A. Melani and M. Niccolai, "Smartphone Fingerprinting Combining Features of On-Board Sensors," in IEEE Transactions on Information Forensics and Security, vol. 12, no. 10, pp. 2457-2466, Oct. 2017. doi: 10.1109/TIFS.2017.2708685.
- [A2] I. Amerini, R. Caldelli, A. Del Mastio, A. Di Fuccia, C. Molinari, A. P. Rizzo, "Dealing with video source identification in social networks", Signal Processing: Image Communication, April 2017, ISSN 0923-5965, <http://doi.org/10.1016/j.image.2017.04.009>.
- [A3] R. Caldelli, R. Becarelli and I. Amerini, "Image Origin Classification Based on Social Network Provenance," in IEEE Transactions on Information Forensics and Security, vol. 12, no. 6, pp. 1299-1308, June 2017. doi: 10.1109/TIFS.2017.2656842
- [A4] I. Amerini, R. Becarelli, F. Brancati, R. Caldelli, G. Giunta, M. L. Itria: Media trustworthiness verification and event assessment through an integrated framework: a case-study. Multimedia Tools and Applications, 2016, DOI 10.1007/s11042-016-3303-8.
- [A5] I. Amerini, R. Becarelli, R. Caldelli, M. Casini.: A feature-based forensic procedure for splicing forgeries detection. Mathematical Problems in Engineering 2015 (2015). DOI 10.1155/2015/653164
- [A6] I. Amerini, R. Caldelli, A. Del Bimbo, A. Di Fuccia, A. P. Rizzo, L. Saravo, "Detection of manipulations on printed images to address crime scene analysis: A case study", Forensic Science International, Available online 30 March 2015, ISSN 0379-0738, <http://dx.doi.org/10.1016/j.forsciint.2015.03.020>.
- [A7] A. Costanzo, I. Amerini, R. Caldelli, M. Barni, "Forensic Analysis of SIFT Keypoint Removal and Injection," Information Forensics and Security, IEEE Transactions on, vol.9, no.9, pp.1450,1464, Sept. 2014 doi: 10.1109/TIFS.2014.2337654.
- [A8] I. Amerini, R. Caldelli, P. Crescenzi, A. Del Mastio, A. Marino, "Blind image clustering based on the Normalized Cuts criterion for camera identification", Signal Processing: Image Communication, Volume 29, Issue 8, September 2014, Pages 831-843, <http://dx.doi.org/10.1016/j.image.2014.07.003>.
- [A9] I. Amerini, R. Becarelli, B. Bertini; R. Caldelli: "Acquisition source identification through a blind image classification", IET Image Processing, 2014, DOI: 10.1049/iet-ipr.2014.0316.
- [A10] I. Amerini, M. Barni, R. Caldelli, A. Costanzo, "Removal and injection of keypoints for SIFT-based copy-move counter-forensics", EURASIP Journal on Information Security, 2013.
- [A11] I. Amerini, M. Barni, R. Caldelli, A. Costanzo, "Counter-forensics of SIFT-based copy-move detection by means of keypoint classification", EURASIP Journal of Image and Video Processing JIVP, 2013, 15 April 2013.
- [A12] I. Amerini, R. Ballan, R. Caldelli, A. Del Bimbo, L. Del Tongo, G. Serra, " Copy-move forgery detection and localization by means of robust clustering with J-Linkage", Signal Processing: Image Communication, Volume 28, Issue 6, July 2013, Pages 659-669, <http://dx.doi.org/10.1016/j.image.2013.03.006>
- [A13] I. Amerini, L. Ballan, R. Caldelli, A. Del Bimbo, G. Serra. A SIFT-based forensic method for copy-move attack detection and transformation recovery. IEEE Transactions on Information Forensics and Security, 6(3):1099–1110, Sep 2011 DOI:10.1109/TIFS.2011.2129512 **[Highly Cited Paper Web of Science (2017)]**

[A14] I.Amerini, G.Ballocca , R.Becarelli, R.Borri , R.Caldelli, F.Filippini, "A DVB-MHP web browser to pursue convergence between Digital Terrestrial Television and Internet", *Multimedia Tools and Applications* (2010) 50: 381. doi:10.1007/s11042-009-0415-4

[A15] I.Amerini, R.Caldelli, V.Cappellini, F.Picchioni , A.Piva, "Estimate of PRNU noise based on different noise models for source camera identification", *International Journal of Digital Crime and Forensics (IJDCF)*, Apr-Jun 2010.

[A16] I.Amerini, R.Caldelli, F.Picchioni, "A DFT-Based Analysis to Discern Between Camera and Scanned Images", *International Journal of Digital Crime and Forensics (IJDCF)*, Jan-Mar 2010.

— International Conferences and Workshops —

[C1] R.Caldelli, I.Amerini, C.-T. Li, "PRNU-based Image Classification of Origin Social Network with CNN", 26th European Signal Processing Conference (EUSIPCO 2018), 3-7 September 2018 [accepted].

[C2] I.Amerini, T. Uricchio, L. Ballan, R. Caldelli, "Localization of JPEG double compression through multi-domain convolutional neural networks", *Media Forensics Workshop at CVPR 2017*, July Honolulu, Hawaii 2017.

[C3] I.Amerini, T. Uricchio, R. Caldelli, "Tracing images back to their social network of origin: a CNN-based approach", 2017 IEEE Workshop on Information Forensics and Security (WIFS) Rennes, France.

[C4] G. Baldini, I. Amerini, G. Stery, R. Caldelli, "The identification of mobile phones through the fingerprints of their built-in magnetometer: an analysis of the portability of the fingerprints", *The 51st International Carnahan Conference on Security Technology*, October 2017.

[C5] I.Amerini, P. Bestagini, L. Bondi, R. Caldelli, M.Casini, S.Tubaro, "Robust smartphone fingerprint by mixing device sensors features for mobile strong authentication", *Electronic Imaging, Media Watermarking, Security, and Forensics 2016*, pp. 1-8(8) <https://doi.org/10.2352/ISSN.2470-1173.2016.8.MWSF-088>

[C6] R. Caldelli, I. Amerini and A. Costanzo, "SIFT match removal and keypoint preservation through dominant orientation shift", *European Signal Processing Conference (EUSIPCO) 2015*, 31st August-4th September Nice, France 2015.

[C7] I. Amerini, R. Becarelli, R. Caldelli, A. Del Mastio, "Splicing Forgeries Localization through the Use of First Digit Features", 2014 IEEE Workshop on Information Forensics and Security (WIFS) Atlanta, GA, 2014, pp. 143-148. doi: 10.1109/WIFS.2014.7084318

[C8] I. Amerini, F. Battisti, R. Caldelli, M. Carli and A. Costanzo, "Exploiting perceptual quality issues in countering SIFT-based Forensic methods," 2014 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Florence, 2014, pp. 2664-2668. doi: 10.1109/ICASSP.2014.6854083

[C9] I. Amerini, R.Caldelli, A. Del Bimbo, A. Di Fuccia, A. Rizzo, L. Saravo, "Copy-move forgery detection from printed images", *Proceedings of IS&T/SPIE Vol. 9029*, San Francisco USA, 2014.

- [C10] I. Amerini, R.Caldelli, A. Del Bimbo, A. Di Fuccia, A. Rizzo, L. Saravo, "Forgery detection from printed images: a tool in crime scene analysis", AAFS 66th Annual Scientific Meeting-Seattle, WA 2014.
- [C11] I.Amerini, M.Barni, R.Caldelli, A.Costanzo, "SIFT keypoint removal and injection for countering matching-based Image Forensics", IH&MMSec'13 ACM Information Hiding and Multimedia Security Workshop, Montpellier, France, 17-19 June 2013.
- [C12] I.Amerini, R.Ballan, R.Caldelli, A.Del Bimbo, L.Del Tongo, G.Serra "An effective tool for copy-move forgery detection and localization", Workshop on Information Forensics & Security (WIFS 2012), Tenerife, Spain, December 2-5, 2012.
- [C13] I. Amerini, M.Barni, R.Caldelli, A.Costanzo, "Counter-Forensics of SIFT-based Copy-Move Detection by Means of Keypoint Classification", (Ongoing work) Workshop on Information Forensics & Security (WIFS 2012), Tenerife, Spain, December 2-5, 2012.
- [C14] R.Caldelli, I.Amerini, R.Ballan, G.Serra, M.Barni, A.Costanzo, "On the effectiveness of local warping against SIFT-based copy-move detection", V International Symposium on Communications, Control & Signal Processing (ISCCSP12), Rome, Italy, May 2-4 2012.
- [C15] R.Caldelli, I.Amerini, A.Novi, "An analysis on attacker actions in fingerprint-copy attack in source camera identification", Workshop on Information Forensics & Security (WIFS 2011), Foz do Iguacu, Brazil, November 29th - December 2nd, 2011.
- [C16] I.Amerini, R.Ballan, R.Caldelli, A.Del Bimbo, L.Del Tongo, G.Serra, "An image forensics tool for copy-move detection and localization", Proc. of IEEE International Conference on Multimedia & Expo (ICME), July 2011, Barcelona, Spain, 11-15 July 2011.
- [C17] R.Caldelli, I.Amerini, F.Picchioni, M.Innocenti, "Fast Image Clustering of Unknown Source Images", Workshop on Information Forensics & Security (WIFS 2010), Seattle, WA, USA, December 12-15, 2010.
- [C18] I.Amerini, R.Ballan, R.Caldelli, A.Del Bimbo, G.Serra, "Geometric Tampering Estimation By Means of A Sift-Based Forensic Analysis", 2010 IEEE International Conference on Acoustics, Speech, and Signal Processing ICASSP 2010, Dallas, Texas, U.S.A., March 14-19, 2010.
- [C19] I.Amerini, R.Caldelli, V.Cappellini, F.Picchioni, A.Piva, "Analysis of Denoising Filters for Photo Response Non Uniformity Noise Extraction in Source Camera Identification", 16th Int. Conference on Digital Signal Processing, Santorini Greece, 5-7 July, 2009.
- [C20] R.Caldelli, I.Amerini, F.Picchioni, V.Cappellini, "Multimedia forensics: technologies for imagery investigation", EVA 2009 Florence, Florence, Italy, 28-30 April, 2009.
- [C21] R.Caldelli, I.Amerini, F.Picchioni, "Distinguishing between camera and scanned images by means of frequency analysis", Proceedings of e-Forensics 2009: The International Conference on Forensic Applications and Techniques in Telecommunications, Information and Multimedia **[Best Paper Award]**, Adelaide, Australia, 19-21 January, 2009.
- [C22] I.Amerini, R.Becarelli, G.Ballocca, R.Borri, R.Caldelli, F.Filippini, "Integration between Digital Terrestrial Television and Internet by means of a DVB-MHP web browser", 5th International Conference on Web Information Systems and Technologies, Lisboa, Portugal, 23-26 March, 2009.

— **Book Chapters** —

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A handwritten signature in blue ink, appearing to read "Irene Amerini".