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MARCO TARINI - CV

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1 Positions

1.1 Current

- 01/05/2022 - *present*: **Full Professor**
  Università degli Studi di Milano (Italy).
  Department of Computer Science.
  (Ita: *Professore Ordinario - SSD: INF/01 Informatica - SC: 01/B1*)

1.2 Past

- 01/01/2018 - 30/04/2022: **Associate Professor**
  Università degli Studi di Milano (Italy).
  Department of Computer Science.
  (Ita: *Professore Associato - SSD: INF/01 Informatica - SC: 01/B1*)

- 01/09/2016 - 31/12/2017: **Associate Professor**
  Università degli Studi dell'Insubria (Varese, Italy).
  Department: DiSTA (Dept. of Theoretic and Applied Sciences).
  (Ita: *Professore Associato - SSD: INF/01 Informatica - SC: 01/B1 - Concorso: 03/2016*)

- 1/05/2004 - 31/12/2018: **Research Associate** (scientific collaboration contract)
  ISTI-CNR (Istituto di Scienze e Tecnologie dell'Informazione - National Research Council)
  Visual Computing Laboratory.
  Contracts: 2004-2006, 2006-2007, 2007-2008, 2009-2012, 2013-2014, 2014-2016, 1/1/2017-31/12/2017 1/1/2018-31/12/2018
  (Ita: *"Ricercatore Esterno" in 2004-2006, "Associato alla Ricerca" after 2006*) .

- 1/03/2005 - 31/08/2016: **Assistant Professor** (faculty member)
  Università degli Studi dell'Insubria (Varese, Italy).
  Department: DiSTA (Dept. of Theoretic and Applied Sciences);
  formerly (before 2010) DICOM (Dept. of Informatics and Communication Sciences).
  (Ita: *Ricercatore Universitario - SSD: INF/01 Informatica - SC: 01/B1 - Concorso: Gen 2004 - confermato in ruolo 19/01/2009 con D.R. n. 14119*)

- 05/2004 - 02/2005: **Researcher** (fixed-term contract).
  DICOM (Dept. of Informatics and Communication Sciences), Varese, Italy.
  (Ita: *Contratto di Ricerca*) .

- 03 - 10/2001: **Researcher - Marie Curie Research Fellow** (research grant).
  Computer Graphics Group
  Max Plank Institute für Informatic, Saarbrücken, Germany.

- 08/1998 - 10/1998: **Researcher** (fixed-term contract).
  CNUCE-CNR (Centro Nazionale Univ. di Calcolo Elettronico - National Research Council, Pisa, Italy).
  (Ita: *contratto di collaborazione co. co.*)

- 07/1997 - 09/1997: **Developer** (employee).
  Voxar Ltd (Edinburgh, UK);
  Graphical Library Developer. Game Designer and Developer. Own project: Tumblebugs (videogame).

1.3 Visiting professor

- 10/2018 - 12/2018: **UTS** - University of Technology Sydney - NSW, Australia
  at: Faculty of Engineering and Information Technology, School of Software

- 02/2018 - 04/2018: **NYU** - New York University - NY, USA
  at: Courant Institute of Mathematical Sciences, Geometric Computing Lab
- 01/2017 - 04/2017: **UVic** - University of Victoria - BC, Canada
  at: Dept of Computer Science, Faculty of Engineering, Graphics Lab
- 01/2025 - 02/2025: **AUEB** - Athens University of Economics and Business - Greece
  at: Dept of Informatics, Computer Graphics Group

1.4 Italian Habilitations

(by Italian Ministry of University and Research (MIUR)- Italian law n. 240/2010, art. 16)

- 09/05/2019 - 09/05/2025: Habilitation as **full professor**, Computer Science (01/B1).
- 04/04/2017 - 04/04/2023: Habilitation as **full professor**, Information Elaboration System (09/H1).

2 Education

- 07/2003: **PhD in Computer Science.** - Università degli Studi di Pisa.
  Dissertation: *"Improving technology for the acquisition and interactive rendering of real world objects"*.
  Supervisors: Dr. Roberto Scopigno (ISTI-CNR) and Dr. Claudio Montani (ISTI-CNR).
  Jury: Prof. Marc Levoy (Stanford University) and Prof. Hans-Peter Seidel (MPI-Saarbrüken).
- 06/1998: **Computer Science Master Degree** - Università degli Studi di Pisa.
  (Ita: *Laurea in Informatica*) - 5 years course - 110/110 cum Laude
- 10/1996 - 10/1997: **Erasmus Program** - University of Edinburgh.
  Computer Science Dept and Artificial Intelligence Dept.

3 Research

3.1 Research interests

- **Computer Graphics:**
  - Geometry Processing (and especially Surface-based [T35, T19, T12, T11, T7, C8, C4, E1, J1] and Volumetric [J10, C11, T32, O1, T24, T22, T15] Representations, Remeshing [T35, J8, T31, T17, T18, T14], Parameterization [T34, O3, T25, T20, T26, T10, T9, T6, T3], and Surface-to-Surface mappings [E3, J6, C10, S6]);
  - Real Time Rendering [T35, O1, E1, T5, T2, J2, C5]
    (and especially texturing [J9, T34, S7, T27, E2, T20, C9, T3, T4, J4, J1, T1]);
  - Real-World 3D Model Acquisition [T30, J7, O2, T21, C9, T9, S4, J3, S2, C7, C3, C2, C1]
  - Computational Fabrication / Manufacturing [T36, T28, T23, T16];
  - Hybrid 2D/3D data and Image-Based Modelling [J5, T8, S4, J1, S5, C1];
  - Computer Animation [T33, T29, T13, S4];
  - Interactive tools for modelling [C11, T24, T19, T25, T17];
- and its **Applications:**
  - Video Games technologies [T35, J10, C11, T29, T25, T19, E2, T13, T1, T4, J4, J1, T1];
  - Cultural Heritage support (virtual museums, restoration support) [B1, J5, T2, S4];
  - Virtual and Augmented Reality [T16, J5, S5, C2];
  - Info and Scientific Visualization (esp. Molecular Graphics) [S6, O1, T5, J2, C6].

3.2 Awards

- **ACM SIGGRAPH Test of Time Award 2025**, for the paper [T17] (co-recipent of the award, with the coauthors of the paper).
- **Best Paper Award 2023**, at the STAG conference (Smart Tools and Apps for Graphics), for the paper [C11] (co-recipent of the award, with the coauthors of the paper).
- **IEEE VIS Test of Time Award 2021** (SciVis) *"An accolade given to recognize previously published articles whose contents are still vibrant and useful today and have had a major impact and influence within and beyond the visualization community."* for the publication [T5]. From the award text: *"[...] an elegant treatment of a difficult problem and a model of effective presentation of lasting results in visualization research."* (co-recipient of the award, with the coauthors of the paper).
- **NVIDIA Academic Partnership award**, an award given by NVIDIA Corporation *"to support [my] research in computer graphics at the University of Milan"*. The *"award is very competitive"* and comes with an unrestricted cash gift (28.3K euros) with the purpose to *"advance knowledge through research and scholarship"* (01/11/2021).
- **Honorable mention**, awarded by the Günter Enderle Best Paper commission at Eurographics 2021, for the paper [T29] (co-recipent of the award, with the coauthors of the paper).
- **SGP Dataset Award 2021** for HexaLab benchmark (see 3.8 and [O1]). Awarded by the Geometry Processing community to *"[...] top-quality datasets and benchmarks provided to the comunity of Geometry Processing as testbed for present and future algorithms."* (co-recipient of the award, with the coauthors of the HexaLab benchmark).
- **SGP Software Award 2020** for the application Instant Meshes (see 3.8 and [T17]). Awarded by the Geometry Processing community to *"outstanding software projects [...] in order to feature some of the scientific highlights and breakthroughs in the field and to promote the reproducibility of research results"* (co-recipient of the award, with the coauthors of the applications).
- **SGP Software Award 2017** for the software suite MeshLab (see 3.8). Awarded by the Geometry Processing community – see above (co-recipient of the award, with coauthors of the software).
- **WebGL Widget Contest 2014** [link] for "Spinnable World Maps" [link] (with William Casola).
- **Eurographics Young Researcher Award 2006**
  awarded by Eurographics, European Association for Computer Graphics *"in recognition of his outstanding contributions to Computer Graphics"*.
  From the award text: *"Marco is a prolific researcher who contributed to several areas within graphics, such as real time rendering, 3D acquisition techniques and visualization.* [...] *Eurographics is pleased to recognize Marco Tarini with the 2006 Young Researcher Award as an outstanding individual who will continue to shape Computer Graphics in the years to come"*.
- **Computer and Graphics Top Cited Article 2005-2010** awarded by ELSEVIER, Amsterdam (The Netherlands), Nov 2010. (co-recipient of the award, with the coauthors of the paper).
- **Best Paper Award 2005** - 1st place, Computer and Graphics (ELSEVIER); paper [J2] (co-recipient of the award, with the coauthors of the paper)
- **Marie Curie Mobility Fellowship** (Research Training Grant) (Mar-Oct 2001).
- **Eurographics Best Student Paper Award 2000**; for the article [T1] (with the coauthors of the paper).
- **Best Thesis Awards (supervised students)**: in addition, four students supervised by me received national awards for their final thesis work, by Eurographics - Italian Chapter:

- 2025: *Best Computer Graphics Bachelor Italian thesis* award (student: Gianluca Roveda, University of Milan, thesis cosupervised with prof. Georgios Papaioannou, on technique to harvest user-preference for view-point selection on 3D models)
- 2023: *Best Computer Graphics Bachelor Italian thesis* award (student: Andrea Borghesi, University of Milan, thesis on technique to prioritize asset loading in videogames)
- 2021: *Best Computer Graphics Bachelor Italian thesis* award (student: Gabriele Princiotta, University of Milan, thesis on an educational video-game to disseminate crystallography)
- 2015: *Best Computer Graphics Bachelor Italian thesis* award (student: William Casola, University of Insubria, thesis on planisphere parametrizations)
- 2014: *Best Computer Graphics Master Italian thesis* award (student: Andrea Bernabei, University of Insubria, thesis on large scale molecular visualization)

3.3 Talks and seminars

Selected academic talks and seminars (see also Sec. 6 for public seminars intended a general audiences).

- **Invited Presentations** (selected)
  - 14/01/2024: "Positioning in 3D video games." [link]. EUEB - Athens University of Economics and Business - Department of Computer Science
  - 14/12/2018: "Surface parametrization revisited for computational fabrication." Faculty of Engineering & IT, UTS - University of Technology Sydney
  - 21/11/2018: "Online visualization of hexahedral meshes" Visualization Matters 2018, `http://visualisation.matters.today/2018/` UNSW - University of New South Wales, Sydney
  - 9/2/2017: "Applications of recent advancements in Geometry Processing." DGP Group (prof. Alla Shaffer), UBC - University of British Columbia, Canada
  - 22/10/2014: "Fun with the Graphics processing unit." Eurographics Conference for Smart Tools and Apps for Graphics - keynote, Università di Cagliari, Italy `http://vcg.isti.cnr.it/stag/program.html`
  - 30/05/2014: "Rendering of animated characters in videogames." Master Game Dev Day - opening talk, Università di Verona, Italy `http://www.mastergamedev.it/master-game-day/`
  - 04/11/2011: "Recent Trends in Surface Parameterization Design."
    Interactive Geometry Lab (prof. Olga Sorkine-Hornung), ETH Zürich, Switzerland `http://igl.ethz.ch/events/2011-11-04/`
  - 16/02/2010: "Attempting a seamless parametrization of everything, failing, and getting away with it." Vision Learning Graphics group (prof. Denis Zorin), New York University, USA
  - 14/07/2008: "Scientific Visualization of Molecular Structures." TU Clausthal (Clausthal University of Technology), Germany
  - 20/04/2007: "3D Scanning and Parametrization." Institut für Computergraphik und Algorithmen (prof. Werner Purgathofer) Technische Universität Wien, Austria
  - 09/02/2006: "Surface Parametrization for Computer Graphics" 3D.Computer.Graphics@ing Dipartimento di Informatica e Sistemistica (prof. Marco Schaerf) Università di Roma "La Sapienza", Italy
  - 24/09/2004: "Automatic Simplification and Hi-Freq Feature Preservation for Complex 3D Models." VII SIMAI Congress, Italian Society for Applied and Industrial Mathematics, SIMAI, Venice, Italy.
- **Conference Speaker / Session Chair** (selected)
  (In each case, the presentation title matches the cited publication).

- 07/12/2022: ACM SIGGRAPH ASIA - Daegu, Republic of Korea - *speaker, presenting* [T33]
- 28/06/2022: SMI - Shape Modeling International - online - *speaker, presenting* [J8] ,
  29/06/2022: *session chair*,
  30/06/2022: *panelist* (Implicit Surface History Event).
- 08/05/2019: EUROGRAPHICS - Annual Conf. of the Eu. Assoc. for Comp. Graphics - Genova, Italy, US - *speaker, presenting* [T27]
- 27/07/2016: ACM SIGGRAPH - Anaheim, California, US - *speaker, presenting* [T20]
- 10/04/2014: EUROGRAPHICS - Annual Conf. of the Eu. Assoc. for Comp. Graphics - Strasbourg, France - *speaker, presenting* [T13]
- 08/05/2013: EUROGRAPHICS - Annual Conf. of the Eu. Assoc. for Comp. Graphics - Girona, Spain - *session chair*. ("Shape Construction" session)
- 15/05/2012: EUROGRAPHICS - Eurographics State of The Art Program - Cagliari, Italy - *speaker, presenting* [C8] ,
  16/05/2012: *session chair*
- 12/12/2011: ACM SIGGRAPH ASIA - Hong Kong, PRC - *speaker, presenting* [T10]
- 09/05/2011: EUROGRAPHICS - Annual Conf. of the Eu. Assoc. for Comp. Graphics - Norrköping, Sweden - *speaker, presenting* [T7]
- 01/11/2006: VIS - IEEE Visualization conf. - Baltimore, Maryland, USA - *speaker, presenting* [T5]
- 30/08/2005: EUROGRAPHICS - Annual Conf. of the Eu. Assoc. for Comp. Graphics - Dublin, Ireland - *speaker, presenting* [T4]
- 10/08/2004: ACM SIGGRAPH - Los Angeles, California, USA - *speaker, presenting* [T3]
- 23/10/2003: VIS - IEEE Visualization conf. - Seattle, Washington, USA - *speaker, presenting* [C4]
- 21/11/2002: VMV - Workshop on Vision, Modeling and Visualization - Erlangen, Germany - *speaker, presenting* [C3]
- 25/07/2002: ACM SIGGRAPH - San Antonio, Texas, USA - *speaker, presenting* [S2]
- 28/05/2002: GI - Conf. on Human-Computer Interaction and Computer Graphics - Calgary, Alberta, Canada - *speaker, presenting* [C2]
- 22/11/2000: VMV - Workshop on Vision, Modeling and Visualization - Erlangen, Germany - *speaker, presenting* [C1]
- 20/08/2000: EUROGRAPHICS - Annual Conf. of the Eu. Assoc. for Comp. Graphics - Interlaken, Switzerland - *speaker, presenting* [T1]

3.4 Reviewing activities

3.4.1 Journal Editorial Board

- 09-2017 - 09-2021: Elsevier Computer and Graphics (Associate Editor);
- 2016: Elsevier Computer and Graphics (Special Issue Guest Editor);
- 2013 - 2015: Journal of Graphic Tools (Associate Editor).

3.4.2 Conference IPC / TPC member

Program Committee member of: (selected)

- SGP 2026: 23th Symposium on Geometry Processing (accepted papers published in Journal: Computer Graphics Forum);

- PG 2025: Pacific Graphics: 33th annual international conference on computer graphics and applications (accepted papers published in Journal: Computer Graphics Forum);
- SIGGRAPH 2024: The ACM SIGGRAPH conference and exhibition on computer graphics and interactive techniques (accepted papers published in Journal: ACM Transactions of Graphics);
- EG-EDU 2023: Eurographics - Education program;
- EG-EDU 2022: Eurographics - Education program;
- PG 2021: Pacific Graphics: 29th annual international conference on computer graphics and applications (accepted papers published in Journal: Computer Graphics Forum);
- EG-EDU 2021: Eurographics - Education program;
- PG 2020: Pacific Graphics: 28th annual international conference on computer graphics and applications (accepted papers published in Journal: Computer Graphics Forum);
- EUROGRAPHICS 2020: 40th Annual Conference of the European Association for Computer Graphics (accepted papers published in Journal: Computer Graphics Forum);
- EG-EDU 2020: Eurographics - Education program (at the same conference above);
- SMI 2020: Shape Modeling International 2020 (accepted papers published in Journal: Computer & Graphics, Elsevier);
- PG 2019: Pacific Graphics: 27th annual international conference on computer graphics and applications;
- SGP 2018: 15th Symposium on Geometry Processing (accepted papers published in Journal: Computer Graphics Forum);
- EUROGRAPHICS 2017: 37th Annual Conference of the European Association for Computer Graphics (accepted papers published in Journal: Computer Graphics Forum);
- SGP 2017: 15th Symposium on Geometry Processing (accepted papers published in Journal: Computer Graphics Forum);
- SIGGRAPH ASIA 2016: The 10th ACM SIGGRAPH conference and exhibition on computer graphics and interactive techniques in Asia (accepted papers published in Journal: ACM Transactions of Graphics);
- EUROGRAPHICS 2016: 36th Annual Conference of the European Association for Computer Graphics (accepted papers published in Journal: Computer Graphics Forum);
- SMI 2016: Shape Modeling International (accepted papers published in Computer & Graphics Journal, Elsevier);
- SGP 2016: 14th Symposium on Geometry Processing; (accepted papers published in Journal: Computer Graphics Forum);
- EUROGRAPHICS 2016 STAR: State of The Art Program (accepted papers published in Journal: Computer Graphics Forum);
- CGI 2015 - Computer Graphics International
- ICIAP 2015: 18th International Conference on Image Analysis and Processing
- CAD/Graphics 2015: The 14th International Conference on Computer-Aided Design and Computer Graphics (accepted papers published in Computers and Graphics Journal - Elsevier);

- GRAPP 2014: International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications
- ISVC 2014: 10th International Symposium on Visual Computing
- CAD/Graphics 2013: 13th International Conference on Computer-Aided Design and Computer Graphics (accepted paper published in Computers and Graphics Journal - Elsevier);
- ISVC 2013: 9th International Symposium on Visual Computing
- EUROGRAPHICS 2013: 33rd Annual Conference of the European Association for Computer Graphics (accepted full papers published in Journal: Computer Graphics Forum);
- EUROGRAPHICS 2012: 32nd Annual Conference of the European Association for Computer Graphics (accepted full papers published in Journal: Computer Graphics Forum);
- GMP 2012: Biannual International Conference on Geometric Modeling and Processing (accepted papers published in Journal: Computer Aided Geometric Design and Graphical Models);
- PACIFIC GRAPHICS 2012: 20th Pacific Conference on Computer Graphics and Applications (accepted full papers published in Journal: Computer Graphics Forum);
- EUROGRAPHICS 2011 Short Paper Track;
- EUROGRAPHICS 2010 Short Paper Track;
- GRAPP 2010: International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications;
- WSCG 2010: International Conferences in Central Europe on Computer Graphics, Visualization and Computer Vision;
- VRIPHYS 2010: Workshop on Virtual Reality Interaction and Physical Simulation;
- VRIPHYS 2009: Workshop on Virtual Reality Interaction and Physical Simulation;
- VRIPHYS 2008: Workshop on Virtual Reality Interaction and Physical Simulation;
- VRIPHYS 2007: Workshop on Virtual Reality Interaction and Physical Simulation;
- VRIPHYS 2006: Workshop on Virtual Reality Interaction and Physical Simulation;
- VRIPHYS 2005: Workshop on Virtual Reality Interaction and Physical Simulation.

3.4.3 Reviewer / Referee

2000 - *present*: continued service as reviewer for all the main International Journals and Conferences of the field, including, but not limited to:

ACM-SIGGRAPH (every edition, 2004-2026); ACM Trans. on Graphics [TOG]; ACM-SIGGRAPH Asia [SIGASIA]; Eurographics [EG]; IEEE Transactions on Visualization and Computer Graphics [TVCG]; IEEE Visualization [IEEE-VIS]; Pacific Graphics [PG]; International Conference for Pattern Recognition [ICPR]; Computer Graphics Forum [CGForum]; Shape Modelling International [SMI]; ACM Journal on Computing and Cultural Heritage [JOCCH]; Elsevier Graphical Models [GMOD]; Elsevier Computers & Graphics [CAG]; Elsevier Computer Aided Geometric Design [CAG-D]; Elsevier Computer Aided Design [CAD]; Pacific Conf. on Comp. Graph. and App. Pacific Graphics [PG]; Computer Graphics, Visualisation & Computer Vision [WSCG]; International Conference on 3-D Digital Imaging and Modeling [3DIM]; IEEE Eurographics Working Group on Data Visualization [EUROVIS]; Joint EUROGRAPHICS

- IEEE TCVG Symp. on Visualization [VisSym]; Int. Conf. in Central Europe on Computer Graphics, Visualization and Computer Vision [WSCG]; EG/ACM Symp. on Geometry Processing [SGP]; Eurographics Symp. on Rendering [EGSR] (until 2015); Eurographics Workshop on Rendering [EGWR] (until 2002); American Symp. on Computer Graphics [SIBGRAPI/SIACG]; International Journal of Image and Graphics [IJIG].

2017 and 2020: external referee for European Research Council Grants (ERC 2017 and 2020).

2018-2021: member of Award committee - at EUROGRAPHICS 2018 and at SGP 2018

3.5 Scientific Publications (selected)

3.5.1 Top-tier journals in Computer Graphics

Publications in the three Top-Tier International Journals in the Computer Graphics fields [source]*, which are:*
1st: *ACM Transaction on Graphics* - issn:0730-0301,
2nd: *IEEE Transaction on Visualization and Computer Graphics*, - issn:1077-2626,
3rd: *Computer Graphics Forum*, - issn:1467-8659.

[T36] Hassan Baharami, Michal Piovarci, Marco Tarini, Bernd Bickel, Nico Pietroni:
Fabricable Discretized Ruled Surfaces
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH ASIA), 44 (3), 15pp 2025

[T35] Andrea Maggiordomo, Henry Moreton, Marco Tarini:
Micro-mesh construction
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH), 42 (4), 18pp, 2023

[T34] Andrea Maggiordomo, Paolo Cignoni, Marco Tarini:
Texture Inpainting for Photogrammetric Models
Computer Graphics Forum - issn:1467-8659 (EUROGRAPHICS), 42 (6), 16pp, 2023

[T33] Stefano Nuvoli, Nico Pietroni, Paolo Cignoni, Rriccardo Scateni, Marco Tarini:
SkinMixer: blending 3D animated models
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH ASIA), 41 (6), 15pp, 2022

[T32] Dennis R. Bukenberger, Marco Tarini, Hendrik P. A. Lensch:
At-Most-Hexa Meshes
Computer Graphics Forum - issn:1467-8659 (EUROGRAPHICS), 41 (1), 2022

[T31] Nico Pietroni, Stefano Nuvoli, Thomas Alderighi, Paolo Cignoni, Marco Tarini:
Reliable feature-line driven quad-remeshing
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH), 40 (4), 17pp, 2021

[T30] Andrea Maggiordomo, Paolo Cignoni, Marco Tarini:
Texture Defragmentation for Photo-Reconstructed 3D Models
Computer Graphics Forum - issn:1467-8659 (EUROGRAPHICS), 40 (2), 56-78, 2021

[T29] Damien Rohmer, Marco Tarini, Niranjan Kalyanasundaram, Faezeh Moshfeghifar, Marie-Paule Cani, Victor Zordan:
Velocity Skinning for Real-time Stylized Skeletal Animation
Computer Graphics Forum - issn:1467-8659 (EUROGRAPHICS), 40 (2), 549-561, 2021

[T28] Kui Wu, Marco Tarini, Cem Yuksel, James Mccann, Xifeng Gao:
Wearable 3D Machine Knitting: Automatic Generation of Shaped Knit Sheets to Cover Real-World Objects
IEEE Trans. on Visualization and Comp. Graph. - issn:1077-2626, 2021

[T27] Cem Yuksel, Sylvain Lefebvre, Marco Tarini:
Rethinking texture mapping
Computer Graphics Forum - issn:1467-8659, 38 (2), 535-551, 2019

[T26] Nico Schertler, Stefan Gumhold, Daniele Panozzo, Marco Tarini:
Generalized motorcycle graphs for imperfect quad-dominant meshes
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH), 37 (4), 155 - 2018

[T25] Roi Poranne, Marco Tarini, Sandro Huber, Daniele Panozzo, Olga Sorkine-Hornung:
Autocuts: Simultaneous Distortion and Cut Optimization for UV Mapping
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH ASIA), 36 (6) - 2017

[T24] Baptiste Angles, Marco Tarini, Brian Wyvill, Loïc Barthe, Andrea Tagliasacchi:
Sketch-based Implicit Blending
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH ASIA), 36 (6) - 2017

[T23] Nico Pietroni, Marco Tarini, Amir Vaxman, Daniele Panozzo, Paolo Cignoni:
Position-Based Tensegrity Design
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH ASIA), 36 (6) - 2017

[T22] Xifeng Gao, Wenzel Jakob, Marco Tarini, Daniele Panozzo:
Robust Hex-Dominant Mesh Generation using Field-Guided Polyhedral Agglomeration
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH), 36 (4), 114 - 2017

[T21] Nico Schertler, Marco Tarini, Wenzel Jakob, Misha Kazhdan, Stefan Gumhold, Daniele Panozzo:
Field-Aligned Online Surface Reconstruction
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH), 36 (4), 77 - 2017

[T20] Marco Tarini:
Volume-encoded UV-maps.
ACM Transactions on Graphics - - issn:0730-0301 - (SIGGRAPH), 35 (4), 107 - 2016

[T19] Claudio Calabrese, Gabriele Salvati, Marco Tarini, Fabio Pellacini:
cSculpt: A System for Collaborative Sculpting.
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH), 35 (4), 91 - 2016

[T18] Francesco Usai, Marco Livesu, Enrico Puppo, Marco Tarini, Riccardo Scateni:
Extraction of the Quad Layout of a Triangle Mesh Guided by its Curve-Skeleton.
ACM Transactions on Graphics - issn:0730-0301, 35 (1), 6, 2015

[T17] Wenzel Jakob, Marco Tarini, Daniele Panozzo, Olga Sorkine-Hornung:
Instant Field-Aligned Meshes.
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH ASIA), 34 (6), 189, 2015

[T16] Daniele Panozzo, Olga Diamanti, Sylvain Paris, Marco Tarini, E. Sorkine, Olga Sorkine-Hornung:
Texture Mapping Real World Objects with Hydrographics.
Computer Graphics Forum - issn:1467-8659 - (SGP), 34 (5), 65-75, 2015

[T15] Marco Livesu, Alla Sheffer, Nicholas Vining, Marco Tarini:
Practical hex-mesh optimization via edge-cone rectification.
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH), 34 (4), 141, 2015

[T14] Daniele Panozzo, Erico Puppo, Marco Tarini, Olga Sorkine-Hornung:
Frame Fields: Anisotropic and Non-Orthogonal Cross Fields.
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH), 33 (4), 134, 2014

[T13] Marco Tarini, Daniele Panozzo, Olga Sorkine-Hornung:
Accurate and Efficient Lighting for Skinned Models.
Computer Graphics Forum - issn:1467-8659 - (EUROGRAPHICS), 33 (2), 421-428, 2014

[T12] David Bommes, Bruno Lévy, Nico Pietroni, Enrico Puppo, Claudio Silva, Marco Tarini, Denis Zorin:
Quad-Mesh Generation and Processing: A Survey.
Computer Graphics Forum - issn:1467-8659, 32 (6), 51-76, 2013

[T11] Daniele Panozzo, Enrico Puppo, Macro Tarini, Nico Pietroni, Paolo Cignoni:
Automatic Construction of Adaptive Quad-Based Subdivision Surfaces Using Fitmaps.
IEEE Trans. on Visualization and Comp. Graph. - issn:1077-2626, 17 (10), 1510-1520, 2011

[T10] Marco Tarini, Enrico Puppo, Daniele Panozzo, Nico Pietroni, Paolo Cignoni:
Simple quad domains for field aligned mesh parametrization.
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH ASIA), 30 (6), 142, 2011

[T9] Nico Pietroni, Marco Tarini, Olga Sorkine, Denis Zorin:
Global parametrization of range image sets.
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH ASIA), 30 (6), 149, 2011

[T8] Paolo Brivio, Marco Tarini, Paolo Cignoni:
Browsing large image datasets through Voronoi diagrams.
IEEE Trans. on Visualization and Comp. Graph. - issn:1077-2626, 16 (6), 1261-1270, 2010

[T7] Marco Tarini, Nico Pietroni, Paolo Cignoni, Daniele Panozzo, Enrico Puppo:
Practical quad mesh simplification.
Computer Graphics Forum - issn:1467-8659, (EUROGRAPHICS), vol. 29 (2), 407-418, 2010

[T6] Nico Pietroni, Marco Tarini, Paolo Cignoni:
Almost isometric mesh parameterization through abstract domains.
IEEE Trans. on Visualization and Comp. Graph. - issn:1077-2626, vol. 16 (4), 621-635, 2010

[T5] Marco Tarini, Paolo Cignoni, Claudio Montani:
Ambient Occlusion and Edge Cueing to Enhance Real Time Molecular Visualization.
IEEE Trans. on Visualization and Comp. Graph. - issn:1077-2626, vol. 12 (5), 1237-1244, 2006

[T4] Marco Tarini, Paolo Cignoni:
Pinchmaps: textures with customizable discontinuities.
Computer Graphics Forum - issn:1467-8659 - (EUROGRAPHICS), vol. 24 (3), $557 - 568$, 2005

[T3] Marco Tarini, Kai Hormann, Paolo Cignoni, Claudio Montani:
PolyCube-Maps.
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH), vol. 23 (3), 850-857, 2004

[T2] David Koller, Michael Turitzin, Marc Levoy, Marco Tarini, Giuseppe Croccia, P.Cignoni, R.Scopigno:
Protected Interactive 3D Graphics via Remote Rendering.
ACM Transactions on Graphics - issn:0730-0301 - (SIGGRAPH), vol. 23 (3), 692-700, 2004

[T1] Marco Tarini, Paolo Cignoni, Claudio Rocchini, Roberto Scopigno:
Real Time, Accurate, Multi-Featured Rendering of Bump Mapped Surfaces.
Computer Graphics Forum - issn:1467-8659 - (EUROGRAPHICS), vol. 19 (3), 119-130, 2000

3.5.2 Top-tier journals in other fields

Publications in top-tier International Journals focused in fields other than Computer Graphics (personal contributions pertains Computer Graphics or Geometry Processing).

[O3] Alice Plutino, Marco Tarini:
Fast ACE (FACE): an error-bounded approximation of Automatic Color Equalization
IEEE Transaction on Image Processing - issn:1057-7149 - vol. 32, 2786-2799, 2023

[O2] Tobias Lendenmann, Teseo Schneider, Jérémie Dumas, Marco Tarini, Costanza Giampietro, Apratim Bajpai, Weiqiang Chen, Julia Gerber, Dimos Poulikakos, Aldo Ferrari, Daniele Panozzo:
Cellogram: On-the-Fly Traction Force Microscopy
Nano Letters - issn:1530-6984 - vol. 19, issue 10, 6742-6750, 2019

[O1] Matteo Bracci, Marco Tarini, Nico Pietroni, Marco Livesu, Paolo Cignoni:
HexaLab.net: an online viewer for hexahedral meshes
Computer-Aided Design - issn:0010-4485 - vol. 110, 24-36, 2019

3.5.3 Other international journals on Computer Graphics

Publications in other peer-reviewed International Journals on Computer Graphics.

[J10] Davide Paolillo, Marco Tarini:
Automatic and User-Assisted Sphere-Mesh Construction
IEEE Computer Graphics and Applications - issn:0272-1716, 33 (2), 44 (6), 105-117, 2024

[J9] Andrea Maggiordomo, Yury Uralsky, Henry Moreton, Marco Tarini:
The inverse barycentric displacement problem
Springer **The Visual Computer** - issn:0178-2789, The Visual Computer 40 (3), 2081-2088, 2024

[J8] Marco Tarini:
Closed-form quadrangulation of n-sided patches
Elsevier **Computers & Graphics** - issn:0097-8493, Volume 107, pp. 60-65, 2022

[J7] Andrea Maggiordomo, Federico Ponchio, Paolo Cignoni, Marco Tarini:
Real-World Textured Things: A repository of textured models generated with modern photo-reconstruction tools
Computer Aided Geometric Design, Volume 83, 101943, 2020

[J6] Simone Melzi, Riccardo Marin, Pietro Musoni, Filippo Bardon, Marco Tarini, Umberto Castellani:
Intrinsic/extrinsic embedding for functional remeshing of 3D shapes
Elsevier **Computers & Graphics** - issn:0097-8493, vol. 88, pp. 1-12, 2020

[J5] Paolo Brivio, Luca Benedetti, Marco Tarini, Federico Ponchio, Paolo Cignoni, Roerto Scopigno:
PhotoCloud: interactive remote exploration of large 2D-3D datasets.
IEEE Computer Graphics and Applications - issn:0272-1716, 33 (2), 86-96, 2013

[J4] Marco Tarini:
Cylindrical and toroidal parameterizations without vertex seams.
Journal of Graphics Tools 16 (3), 144-150, 2012
doi:10.1080/2151237X.2012.654054

[J3] Marco Tarini, Hendrik P.A. Lensch, Michael Gösele, Hans-Peter Seidel:
3D Acquisition of Mirroring Objects using Striped Patterns.
Elsevier **Graphical Models** - issn:1524-0703 Science, vol 67 (4), pp. 233-259, 2005

[J2] Paolo Cignoni, Roberto Scopigno, Marco Tarini:
A Simple Normal Enhancement Technique for Interactive Non-photorealistic Renderings.
Elsevier **Computers & Graphics** - issn:0097-8493, vol. 29 (1), pp. 125-133, 2005

[J1] Paolo Cignoni, Claudio Montani, Claudio Rocchini, Roberto Scopigno, Marco Tarini:
Preserving attribute values on simplified meshes by re-sampling detail textures.
Springer **The Visual Computer** - issn:0178-2789, Vol. 15 (10), 519-539, 1999

3.5.4 International conferences

Full papers in Proceedings of International Conferences on Computer Graphics (peer reviewed).

[C11] Davide Paolillo, Andrea Taroni, Marco Tarini:
User-assisted sphere-mesh construction
Smart Tools and Applications in Graphics (STAG)
ISBN 978-3-03868-235-6, - issn:2617-4855, DOI = 10.2312/stag.20231303 Italy 2023,

[C10] Riccardo Marin, Simone Melzi, Pietro Musoni, Filippo Bardon, Marco Tarini, Umberto Castellani:
CMH: Coordinates Manifold Harmonics for Functional Remeshing
Eurographics Workshop on 3D Object Retrieval (3DOR)
ISBN 3-905673-15-0, - issn:1997-0471, DOI = 10.2312/3dor.20191063 Italy 2019,

[C9] Dario Marco, Paolo Cignoni, Marco Tarini:
Anisotropic MatCap: Easy Capture and Reproduction of Anisotropic Materials.
Eurographics Italian Chapter Conference (EG-it), Genova, Italy, 2016

[C8] David Bommes, Bruno Lévy, Nico Pietroni, Enrico Puppo, Claudio Silva, Marco Tarini, Denis Zorin:
Quad Meshing.
Eurographics 2012-State of the Art Reports (EG-STAR), 159-182, 2012

[C7] Davide Portelli, Fabio Ganovelli, Marco Tarini, Paolo Cignoni, Matteo Dellepiane, Roberto Scopigno:
A framework for User-Assisted Sketch-Based Fitting of Geometric Primitives.
Proc. of WSCG, 18th Int. Conference on **Computer Graphics, Visualization and Computer Vision**, Plzeň-Bory, Czech Republic, 2009

[C6] Pietro Colombo, Emanuele Grosso, Marco Tarini:
A Web-based solution supporting the integration of virtual reality environments in logistics applications.
Eurosis Euromedia, EUROSIS-ETI, Porto (Portugal), 2008

[C5] Kai Hormann, Marco Tarini:
A Quadrilateral Rendering Primitive.
Workshop on **Graphics Hardware**, Grenoble (France), (ISBN 3-905673-15-0) pp. 7-14, 2004

[C4] Marco Tarini, Paolo Cignoni, Roberto Scopigno:
Visibility based methods and assessment for detail-recovery.
Proc. of **Visualization**, Seattle, USA, (ISBN 0-7695-2030-8), 457-464, 2003

[C3] Marco Tarini, Marco Callieri, Claudio Montani, Claudio Rocchini, Karin Olsson, Therese Persson:
Marching Intersections: An Efficient Approach to Shape-from-Silhouette.
Proc. of the 5th IEEE Workshop on **Vision, Modeling, and Visualization** (VMV), Erlangen, Germany, pp. 283-290, 2002

[C2] Marco Tarini, Hitoshi Yamauchi, Jorg Haber, Hans-Peter Seidel:
Texturing Faces.
Proc. of **Graphics Interfaces** (GI), Calgary, Canada, pp. 89-98, 2002

[C1] Marco Tarini, Paolo Cignoni, Claudio Rocchini, Roberto Scopigno:
Computer Assisted Reconstruction of Buildings from Photographic Data.
Proc. of the 5th IEEE Workshop on **Vision, Modeling and Visualization** (VMV), pp. 213-220 Saarbrücken, Germany, 2000

3.5.5 Short papers / posters

Short papers and posters appeared in proceedings of International Conferences on Computer Graphics (peer reviewed).

[S7] Andrea Maggiordomo, Marco Tarini:
Seamless Compressed Textures.
Proc. of **Eurographics Posters - The Eurographics Association**, - issn:1017-4656, 2022

[S6] Simone Melzi, Riccardo Marin, Pietro Musoni, Umberto Castellani, Marco Tarini:
Visual Assessments of Functional Maps.
Proc. of **Eurographics Symposium on Geometry Processing - Posters**, - issn:1727-8384, 2019

[S5] Paolo Brivio, Marco Tarini, Paolo Cignoni, Roberto Scopigno:
Joint interactive visualization of 3D models and pictures in walkable scenes.
Proc. of **Eurographics - Posters**, 2012

[S4] Paolo Brivio, Marco Tarini:
Picture-driven procedural modelling - building an animated model of Ghirla watermill (18th cen.).
Short Paper at **Eurographics Italian Chapter Conference** (EG-it), 2009

[S3] Paolo Brivio, Gianfranco Femia, Maurizio Macchi, Matteo Lo Prete, Marco Tarini:
Modelling of Virtual Compressed Structures Through Physical Simulation.
Proc. of 3D-ARCH, Int. Arc. of **Photogrammetry, Remote Sensing and Spatial Inf. Sci.**, Nafplio, Greece, - - issn:1682-1777, 2009

[S2] Marco Tarini, Hendrik Lensch, Michael Gösele, Hans-Peter Seidel:
Shape from Distortion: 3D Range Scanning of Mirroring Objects.
Technical Sketch, in Conference Abstracts and Applications, **SIGGRAPH**, S.Antonio, Texas, p. 248, 2002

[S1] Paolo Cignoni, Roberto Scopigno, Marco Tarini:
Normal Enhancement for Interactive NPR.
Proceedings of the short paper program of **EUROGRAPHICS**, Saarbrücken, Germany, pp. 95-104, 2002

3.5.6 Book chapters

[B1] Marco Tarini:
Sala del Grechetto: ricostruzione virtuale. (in Italian)
in: "Lo spazio del collezionismo nello stato di Milano, secoli XVII-XVIII", Andrea Spiriti (curator), pages 119-124. ISBN 9788867280896. Viella, Rome, 2013

3.5.7 Other publications

[E3] Andrea Maggiordomo, Marco Farronato, Gianluca Tartaglia, Marco Tarini:
A method based on 3D affine alignment for the quantification of palatal expansion
Plos one 17 (12), e0278301

[E2] Marco Tarini, Cem Yuksel, Sylvain Lefebvre:
Rethinking texture mapping.
SIGGRAPH 2017 Courses Notes, Los Angeles, 2017

[E1] Silvia Biasotti, Andrea Giachetti, Marco Tarini:
Foreword to the Special Section on Smart Tools and Applications in Computer Graphics.
Computers & Graphics, pp. A3-A4, 2015

3.5.8 Bibliometrics

According to Google Scholar [link]:
H-Index: **36** - Citations: **4725**
According to Scopus [link]:
H-Index: **26** - Citations: **3030** (from 2310 sources)

3.5.9 Affiliations of coauthors

Affiliations of external coauthors, as they appear in co-published articles, reported with the number of coauthored publications (in parenthesis, the total number of co-author occurrences with that affiliation).

CNR / ISTI, Pisa: 32 (69),
Università di Milano: 12 (16),
NYU, New York University: 9 (13),
ETH Zurich: 7 (20),
Università di Genova: 7 (10),
Università dell'Insubria, Varese: 7 (7),
MPI, Max Planck Institut, Saarbrücken: 4 (12),
UTS University of Technology Sydney: 4 (6),
INRIA / ALICE, Grenoble: 4 (4),
Università di Verona: 3 (9),
Polytechnic Institute of NYU: 3 (4),
Utha University, Salt Lake City: 3 (3),
Università di Cagliari: 3 (5),
NVIDIA: 2 (3),
TU Dresden: 2 (3),
INRIA / ALICE, Sofia-Antipolis: 2 (2),
EPFL Lausanne: 2 (2),
CNR / IMATI, Genova: 2 (2),
UBC, Univ. of British Columbia, Vancouver: 1 (3),
Stanford University: 1 (3),
Victoria University: 1 (3),
La Sapienza University, Rome: 1 (3),
Ecole Polytechnique Paris: 1 (2),
Clemson University: 1 (2),
E. Karls Univ., Tübingen: 1 (2),
Adobe Research, Cambridge: 1 (1),
Johns Hopkins University, Baltimore: 1 (1),
EMPA, Dubendorf: 1 (1),
Universiteit Utrecht: 1 (1),
Politecnico di Milano: 1 (1),
Université de Toulouse: 1 (1),
MIT, Boston: 1 (1),
Carnegie Mellon Univ.: 1 (1),
Florida State Univ.: 1 (1),
Univ. Copenhagen: 1 (1).

3.6 Main publicly funded projects

- 09-2023 - *present*: **I-CLOTH:** Automatic Reconstruction and Interactive simulation of non-rigid shape for computer-aided cloth design (PRIN 202273Z7PZ - 24 months)
  Research Unit Director (Ita: *Responsabile dell'Unità di Ricerca*)
  Co-funded by MUR (Italian ministry of Research); total project cost: 272K€.
  Cofunding by MUR for the Research Unit: 89K€.

- 2021: Piano di Sostegno alla Ricerca (PSR) - Linea 2: "Scientific Visualization, Multimedia, Perception" (PSR2021_DIP_010), funded by Università degli Studi di Milano - Principal Investigator (12 months - 6.0K€).

- 2015 - 2020: **D-SURF:** Scalable Computational Methods for 3D Printing Surfaces (PRIN 2015B8TRFM - 36 months) - Research Unit Director (Ita: *Responsabile dell'Unità di Ricerca*) .
  Co-funded by MUR (Italian ministry of Research); total project cost: 899K€
  Co-funding by MUR for the Research Unit: 109K€.

- 2020: Piano di Sostegno alla Ricerca (PSR) - Linea 2: "Scientific Visualization, Multimedia, Perception" (PSR2020_DIP_010), funded by Università degli Studi di Milano - Principal Investigator (12 months - 7.5K€).
- 2013 - 2015: **Harvest 4D:** Harvesting Dynamic 3D Worlds from Commodity Sensor Clouds (EU FP7 project ICT FET, Grant Agreement 323567)
- 2010 - 2012: "Collezionismo e spazi del collezionismo aristocratico nel XVII e nel XVIII sec." (virtual museums) (PRIN 2008C7P2LY 003 - 24 months).
- 2009 - 2013: : **VISITO** Tuscany (POR CREO FESR 2007-2013): VIsual Support to Interactive TOurism in Tuscany (financed by Regione Toscana - 48 months)
- 2008 - 2012: : **3D Coform**: Tools and Expertise for 3D Collection Formation (EG 7FP IP, EU IST-231809 - 48 months)
- 2003 - 2004: **MACROGeo**: Metodi Algoritmici e Computazionali per la Rappresentazione di Oggetti Geometrici (MIUR - 24 months)
- 2002 - 2005: **ViHAP3D** - Virtual Heritage: High-Quality 3D Acquisition and Presentation (EU IST-2001- 32641 - 36 months)
- 2000 - 2003: **Digital Michelangelo Project**, Stanford Computer Graphics Lab e Sovrintendenza ai beni artistici e storici per le province di Firenze, Pistoia, e Prato

3.7 Main industrial collaborations

- 2021-2025: **Dinema - Lonati Group** Three consultancy contracts for projects within the context of 3D support of manufacturing for textile machinery, in 2021, 2023, and 2025 (total 302K€).
- 2021 - 2022: **Nvidia Coorporation** - collaboration for new data-stuctures for fast GPU renderers. (see also Sec. 3.2);
- 2018: **Canon Research** - teaching / training activies on Web-based Real Time Rendering (see also Sec. 4.1);
- 2017: **The Foundry Visionmongers** - collaboration for mesh retopology tools in MODO (see also 3.8, [T17]).

3.8 Open-Source developer

In the context of my research activities, I have co-developed several Open-Source projects with a significant impact in the scientific community, including:

- **Instant meshes**: a software tool to remesh a surface into an isotropic triangular or quad-dominant meshing. Also ported into version 10.2 of MODO (the Foundry), a professional 3D suite. (dev team member); SGP Software Award 2020 [link]
- **MeshLab**: a popular tool for mesh-based geometry processing comprised of hundreds of functionalities (dev team member, >2.5M downloads); SGP Software Award 2017
- **QuteMol**: molecular software visualization tool (dev team leader, >56K downloads)
  QuteMol was credited, for example, in the covers of Science Magazine (April 2009) [link] and The EMBO Journal (July 2013) [link], and in a large number of Wikipedia pages.
- **VCG lib** - Visual and Computer Graphics Library: one of the principal C++ libraries for mesh-based geometry processing (dev team member).

- **PhotoCloud**: a interactive immersive visualizer of large hybrid 3D/2D datasets consisting of 3D scenes and photographs. [link] (core developer)
- **HexaLab**: an online 3D visualizer and repository of hexa-meshes; avalialbe online at https://www.hexalab.net/; SGP Dataset Award 2021 (core developer).

(all projects available from sourgeforge.net or github. Download counts updated at Oct. 2021).

4 Teaching

4.1 Lecturer of Courses

At International Conferences (peer reviewed):

- "RETHINKING TEXTURE MAPPING"
  co-teacher: prof. Cem Yuksel
  SIGGRAPH 2017 Course. Aug 03, 2017 (half day)
  Los Angeles, CA, USA

PhD courses:

- "PARAMETRIZATION FOR ACQUISITION" (4H)
  "PARAMETRIZATION FOR FABRICATION" (4H)
  4th Summer Evocation Summer School (online) 13-14/10/2022
- "LEARNING ON 3D GEOMETRIES" (2 ETCS)
  co-teacher: Simone Melzi, PhD
  University of Milan, 2021
- "GEOMETRY PROCESSING INTRODUCTORY COURSE" (2 ETCS)
  University of Milan, 2020
- "GEOMETRY PROCESSING" (2 ETCS)
  in charge for organization / exams; lectures held by appointed international lecturers.
  Linked to the SGP International School 2019. University of Milan, 07/2019
  `https://sgp2019.di.unimi.it/graduate_school.html`
- "SURFACE PARAMETRIZATION"
  STAG Ph.D School 2018: Graphics and Geometry Processing for Digital Manufacturing
  (Eurographics Italian Chapter), Brescia, Italy, 10/2018.
  `http://egit-school2018.unibs.it/index.php/lectures`
- "QUAD MESH PROCESSING"
  SGP - Geometry Processing school for PhD students
  (Eurographics / ACM). Genova, Italy, 07/2013.
- "GRAPHICS HARDWARE"
  Eurographics Winter School for PhD students
  (Eurographics Italian Chapter). Pisa, Italy, 02/2005.

2nd level University Master courses:
(Ita: *Master Universitario*)

- "ADVANCED GRAPHIC PROGRAMMING" - 16 h **(×8 years)**,
  University Master in Computer Game development
  University of Verona, A.Y. 2017/2018, 2018/2019, 2019/2020, 2020/2021, 2021/2022, 2022/2023, 2024/2025, 2025/2026

- "GAME ENGINES" - 16 h (×**2 years**),
  University Master in Computer Game development
  University of Verona, A.Y. 2014/2015 and 2015/2016

- "GAME TOOLS PROGRAMMING" - 16 h (×**2 years**)
  University Master in Computer Game development
  University of Verona, A.Y. 2012/2013 and 2013/2014

Postgraduate courses: master degree - Computer Science
(Ita: *Laurea Magistrale / Specialistica in Informatica*)

- "3D VIDEO GAMES" - 6 ETCS (×**8 years**),
  Università - Milano - A.Y. 2018/2019, 2019/2020, 2020/2021, 2021/2022, 2022/2023, 2023/2024, 2024/2025, 2025/2026 (pending)

- "GAME DEVELOPMENT" - 6 ETCS (×**3 years**),
  Università dell'Insubria - Varese - A.Y. 2017/2018, 2015/2016, and 2013/2014

- "COMPUTER GRAPHICS" - 6 ETCS (×**6 years**),
  Università dell'Insubria - Varese - A.Y. 2010/2011, 2009/2010, 2008/2009, 2007/2008, 2006/2007, and 2005/2006

- "SISTEMI MULTIMEDIALI II" - 6 ETCS,
  (Multimedia Systems II)
  Università dell'Insubria - Varese - A.Y. 2004/2005

Postgraduate courses: master degree - Humanities Computing
(Ita: *Laurea Magistrale in Informatica Umanistica*)

- "MODELLAZIONE 3D" - 6 ETCS,
  (3D modelling - introductory course on technologies for 3D modelling)
  Università di Pisa - A.Y. 2013/2014

Undergraduate courses: bachelor - Computer Science
(Ita: *Laurea Triennale in Informatica*)

- "COMPUTER GRAPHICS" - 6 ETCS, (×**7 years**)
  Università - Milano - A.Y. 2019/2020, 2020/2021, 2021/2022, 2022/2023, 2023/2024, 2024/2025, 2025/2026 (pending)

- "ARCHITETTURE DEGLI ELABORATORI" - 6 ETCS,
  (Computer Architecture)
  Università - Milano - A.Y. 2025/2026

- "ARCHITETTURE DEGLI ELABORATORI I" - 9 ETCS,
  (Computer Architecture)
  Università - Milano - A.Y. 2019/2020
  (in charge for 6 ETCS, excluding the lab)

- "GRAFICA E IMMAGINI DIGITALI" - 9 ETCS (×**2 years**),
  (Computer Graphics and Digital Images)
  Università - Milano - A.Y. 2017/2018 and 2018/2019

- "ARCHITETTURE DEGLI ELABORATORI II" - 9 ETCS, (×**6 years**)
  (Computer Architecture 2)
  Università - Milano - A.Y. 2018/2019, 2020/2021, 2020/2022, 2022/2023, 2023/2024, 2024/2025
  (in charge for 3 ETCS, laboratory)

- "COMPUTER GRAPHICS AND IMAGE PROCESSING", 1.5 Units,
  co-teacher: Prof. Andrea Tagliasacchi
  UVIC - University of Victoria - Canada. A.Y. 2016/2017

- "GRAFICA COMPUTAZIONALE" - 6 ETCS (×**4 years**),
  (Computer Graphics)
  Università dell'Insubria - Varese A.Y. 2011/2012, 2012/2013, 2014/2015, and 2016/2017

- "ARCHITETTURE DEGLI ELABORATORI" - 9 ETCS (×**2 years**),
  (Computer Architecture)
  Università dell'Insubria - Varese A.Y. 2016/2017 and 2017/2018

- "SVILUPPO APPLICAZIONI WEB" - 6 ETCS,
  (Web Application Development)
  Università dell'Insubria - Varese - A.Y. 2015/2016

- "LABORATORIO DI GRAFICA COMPUTAZIONALE" - 3 ETCS,
  (Computer Graphics Lab)
  Università dell'Insubria - Varese A.Y. 2011/2012

- "ALGORITMI E STRUTTURE DATI" - 3 (on 15) ETCS,
  (Algorithms and Data Structures)
  Università dell'Insubria - Varese - A.Y. 2009/2010
  (in charge for 3 ETCS on 15)

- "LABORATORIO DI LINGUAGGI" - 3 ETCS (×**3 years**),
  (C programming course)
  Università dell'Insubria - Varese - A.Y.: 2004/2005, 2006/2007, and 2007/2008.

- "FONDAMENTI DI INFORMATICA" - 6 ETCS,
  (Computer Science Foundations),
  Università dell'Insubria - Varese A.Y. 2005/2006

Courses for Industry:

- 10/2022: "3D DIGITAL SURFACE PROCESSING FOR TEXTILE MACHINERY" (18 hours) Dinema SpA, Lonati group, Brescia, Italy.

- 11/2018: 3D "GRAPHICS FOR WEB" (12 hours) CISRA Canon Information System Research (UTS Faculty of Eng. and IT), Australia, Sydney
  co-lecturer: Nico Pietroni

Other courses:

- 08/2021: mentor at "THE SUMMER GEOMETRY INSTITUTE" - SGI 2021
  (SGI is a *"paid summer research program introducing graduate students to the field of geometry processing"* by MIT). Mentored project: "Better Volume-encoded Parametrizations" (2 weeks)
  MIT, Massachusetts Institute of Technology - Boston and remotely, 2-15/08/2021.

- "APPLICAZIONI WEB" - (16h),
  (Web Application Development)
  Laurea in Apprendistato - Università dell'Insubria - Varese, A.Y. 2016/2017

- mentor at "LEARNING WEEK" (1 week)
  (Orientation and training for the International Olympiad in Informatics for High School pupils).
  Financed by Regione Lombardia. Busto Arsizio (Va), 02/2009.

4.2 Theses and PhD Supervisor / Jury

- **Supervisor** of 50+ Italian Laurea theses (Computer Science Course), both bachelor and master degrees, at the universities of Pisa (in 2004 and 2014), of Insubria (from 2004 to 2017), and of Milan (2018 to present). They include winners of national Awards as best Italian theses on Computer Graphics (see Sec. 3.2).

- **PhD supervisor**:

  - Andrea Maggiordomo (PhD, Univeristy of Milan, 2019-2023).
    Dissertation title: "Optimization of Photogrammetric 3D Assets".
    Co-supervisor: Dr. Paolo Cignoni
    Referees: Prof. George Drettakis, Prof. Silbia Biasotti, Prof. Micheal Wimmer
  - Paolo Brivio (PhD, Univeristy of Insubria, 2008-2012).
    Dissertation title: "Management and Visualization of Large Heterogeneous 2D-3D Datasets".
    Jury: Prof. Micheal Goesele, Prof. Andrea Fusiello, Prof. Roberto Ranon

- **PhD Jury member**:

  - 06/12/2023: *Candidate:* Guillaume Coiffier – *Supervisor:* prof. Dmitry Sokolov
    Dissertation title: "Global Parametrization Algorithms for Quadmeshing."
    Laboratoire Lorrain de Recherche en Informatique et ses Applications, Nancy, France
  - 25/07/2022: *Candidate:* Claudio Mancinelli – *Supervisor:* prof. Enrico Puppo
    Dissertation title: "Drawing on Surfaces."
    DIBRIS - Università degli Studi di Genova, Italy
  - 31/03/2021: *Candidate:* Elia Moscoso Thompson – *Supervisor:* prof. Silvia Biasotti
    Dissertation title: "Similarity reasoning for local surface analysis and recognition."
    DIBRIS - Università degli Studi di Genova, Italy
  - 29/03/2021: *Candidate:* Mads Rønnow – *Supervisors:* prof. Marco Fratarcanceli and prof. Ulf Assarsson
    Dissertation title: "On Prism-based Motion Blur and Locking-proof Tetrahedra."
    University of Gothenburg and Chalmers University of Technology, Göteborg, Sweden
  - 18/06/2019: Università degli Studi di Milano (6 candidates).
  - 19/06/2016: *Candidate:* Simone Melzi – *Supervisor:* prof. Umberto Castellani
    Dissertation title: "Local Geometry Processing for Deformations of Non-Rigid 3D Shapes."
    Università degli studi di Verona, Italy
  - 06/12/2016: *Candidate:* Randolf Schärfig – *Supervisor:* prof. Kai Hormann
    Dissertation title: "Efficient Multi-Bounce Lightmap Creation Using GPU Forward Mapping."
    Università di Lugano, Switzerland
  - 03/02/2016: *Candidate:* Nadine Abu Rumman – *Supervisor:* prof. Marco Schaerf
    Dissertation title: "Position-based Skin Deformations for Interactive Character Animation."
    La Sapienza University, Rome, Italy
  - 22/05/2015: Università degli Studi di Cagliari (4 candidates).
    23/10/2012: *Candidate:* Francisco González García – *Supervisor:* prof. Gustavo Patow
    Dissertation title: "Parallel spatial data structures for interactive rendering."
    Universitat de Girona, Spain
  - 22/12/2009: *Candidate:* Yannick Francken – *Supervisor:* prof. dr. Philippe Bekaert
    Dissertation title: "Mesostructure Acquisition With Planar Illuminants."
    Hasselt University, Belgium

- **Others**:

- 05/05/2021: reviewer and panelist for the Doctoral Consortium at Eurographics 2020 (Vienna).
  For candidates: Hsueh-Ti Derek Liu (univ. Toronto, Canada), "3D Modeling for Everyone"
  Silvia Sellan (univ. Toronto, Canada), "Virtual 3D Geometry and the Real World"

5 Organizational Activities

5.1 Conference Chairing

- 2019: General co-chair of **Symposium of Geometry Processing** [link]
  Milan, 2019
- 2019: Education Program co-chair of **EUROGRAPHICS** [link]
  Genova, 2019
- 2015: Program co-chair of STAG2015 - 7th Italian Chapter Conference - Smart Tools and Apps in computer Graphics [link]
  Venue: Verona, October 15-16 2015
  Proceedings: ISBN: 978-3-905674-97-2. Editors: Silvia Biasotti, Andrea Giachetti, Marco Tarini.

5.2 Other organizational roles

- 01/01/2024 - *present*: Coordinator of the Master Degree Course in Computer Science, Università di Milano
- 15/03/2018 - *present*: Member of the Boards of the PhD Program in Computer Science, (Ita: *Informatica*) - Università di Milano
  (Ita: *Collegio dei Docenti del Dottorato di Ricerca in Informatica*)
- 01/07/2018 - 01/12/2023: Referrer for the Quality Assurance for the Master Degree Course in Informatics - Università di Milano
  (Ita: Commissione Qualità - Referente Assicurazione Qualità per CdL Informatica Magistrale)
- 2020: Chair of Best Paper Award committee - STAG 2021
- 2015 - *present*: Treasurer of Eurographics (European Association for Computer Graphics) - Italian Chapter [link]
- 2020: Chair of Best Paper Award committee - EUROGRAPHICS, 2020 [link]
- 2019: Chair of Best Paper Award committee - EUROGRAPHICS, 2019 [link]
- 09/2015 - 12/2017: Member of the Boards of the PhD Program in Computer Science and Computational Mathematics - Università dell'Insubria
  (Ita: *Collegio dei Docenti del Dottorato di Ricerca in Informatica e Matematica del Calcolo*)
- 2016 - 2017: Member of Internal Quality Assurance (AiQUA) - Università dell'Insubria
  (Ita: *Commissione per l'Assicurazione Interna della Qualità - AiQUA*)
- 2016 - 2017: Member of Didactic Committee - Università dell'Insubria
  (Ita: *Commissione Didattica*)

5.3 Selection Committee Boards

(This section is in Italian)
Attività in commissioni di concorsi pubblici di selezione o di ammissione:

- 07/07/2025: Commissione per Ricercatore RTT - Univ. Milano *(Presidente)* (codice 5613)
- 2021 - 2025: Commissione Esaminatrice di Ammissione alla Laurea Magistrale in Informtica per Studenti Extraeuropei (100-150 applicants yearly) - appointed by Dipartimento di Informatica, Univ. Milano. *(Presidente di commissione nel 2022 e 2023)*.
- 12/12/2022: Commissione per Contratto di Insegnamento Art. 23 - Selez. 1172-4288 - Univ. Milano
- 16/10/2021: Commissione per Concorso per Professore Associato *(Segretario)* - Univ. "La Sapienza" Rome
- 26/04/2021: Commissione Esaminatrice di Ammissione Dott. di Ricerca (Borsa Finanziata H2020), XXXVII Ciclo - Univ. Milano
- 26/08/2019: Commissione per Ricercatore III livello - Bando 380.6 - ISTI / CNR
- 22/10/2018: Commissione per Assegno di Ricerca *(Presidente)* - Univ. Milano
- 16/09/2015: Commissione Esaminatrice per Ammissione Dott. di Ricerca XXXI Ciclo - Univ. Insubria
- 28/01/2015: Commissione per Contratto di Ricerca Art. 23 *(supplente)* - Selez 002/2015 - ISTI / CNR
- 07/01/2015: Commissione per Contratto di Ricerca Art. 23 - Selez 07/2014 - ISTI / CNR
- 05/06/2012: Commissione per Contratto di Ricerca Art. 23 - Selez 04/2012 - ISTI / CNR
- 28/02/2011: Commissione per Contratto di Ricerca Art. 23 - Selez 01/2011 - ISTI / CNR
- 08/09/2010: Commissione per Contratto di Ricerca Art. 23 - Selez 09/2010 - ISTI / CNR
- 01/01/2009: Commissione per Contratto di Ricerca Art. 23 - Selez 01/2009 - ISTI / CNR

Tutte le procedure di valutazione sono per titoli e colloquio. Le date riportate indicano i relativi decreti di nomina.

6 Third Mission

Selected seminars, activities, talks, speeches **for a general audience** (in Italian or English):

- 01/10/2020: public seminar: "Positioning in 3D video games"
  (part of event cycle: *Computer Science Workshop 2021 - Research in computer science*, at UniGe, Genova)
- 18/12/2020: keynote lecture: "3D Acquisition for Cultural Heritage: the technical side"
  (part of event cycle: *A Conservation Carol 2020 - La Diagnostica punto di incontro nel mondo dei Beni Culturali*, at UniMi, Milan)
- 14/03/2019: public seminar: "Anatomia di un videoGame"
  (part of event cycle: *Milano-Digital-Week*, at UniMi, Milan)
- 22/09/2019: public seminar: "Posizionamento 3D nei videogames"
  (part of event cycle: *MESA Arcade-My*, at PoliMi, Milan)

- 16/03/2019: full day event and lab activity for high-school students: "Computational Manufacturing: Quando i computer ci aiutano a costruire le cose"
(part of event cycle: *Milano-Digital-Week*, at UniMi, Milan)
- 08/09/2018: public seminar: "Online Visualization of Hexa Meshes"
(part of event cycle: *Visualization Matters*, at University of New South Wales - Art and Design, Sydney)
- 2014-2016: full-day lab for elementary schools pupils $\times 3$ (yearly editions in 2014, 2015 and 2016): "Informatica senza computer"
(part of event cycle: *Meet-me-tonight*, at Univ. Insubria, Varese)
- 12/02/2015: seminar for high-school students: "Anatomia di un VideoGame"
(part of event cycle: *CS seminar cycle*, at Univ. Insubria, Varese)
- 10/12/2014: public seminar: "Anatomia di un videoGame"
(part of event cycle: *UNAgames*, at Univ. Pisa, Pisa)
- 2010-2012: public seminars $\times 3$ (yearly editions in 2010, 2011 and 2012): "Computer Graphics at the university"
(part of event cycle: *Open Days*, at Univ. Insubria, Varese)
- $29/02/2008$ and 06/03/2008: public seminars $\times 2$: "Computer Graphics 3D per arte e restauro"
(part of event cycle: *InformaticAll'Insubria*, at Univ. Insubria, Varese)
- 26/04/2007: public seminar: "Visualizzazione Non Fotorealistica di Molecole"
(part of event cycle: *3D.Computer.Graphics@ing*, at Univ. Roma "La Sapienza", Rome)
- 09/02/2006: public seminar: "3D Scanning per Beni Culturali"
(part of event cycle: *3D.Computer.Graphics@ing*, at Univ. Roma "La Sapienza", Rome)

7 Etc

7.1 Game designer & developer

- **"Hair Color Game: Colorology"** (boardgame), 2025. With Alessandro Rizzi and Simone Liberini. https://boardgamegeek.com/boardgame/432584/hair-color-game-colorology
- **"The Last Days of the Third Era"** (videogame, *Warbands* modification), 2015. Core dev-team member. Ranked 76 of 37,588 titles on ModDB (as of 24-12-2018).
- **"OpenBRF"** (a tool to organize and edit 3D video-game assets), 2009. Downloaded more than 45K times and de-facto standard game-tool in the "Mount&Blade" modding community. [link to forum]
- **"Elemental Wars"** (card-game), 1997, Luigi Ferrini, Millo Franzoni, Marco Tarini (designers) and Luigi Castellani (artist). Publisher: Quality Games.
Previously, winner of Unpublished Games Contest, Lucca Comics and Games 1996.
- **"Tumble Bugs"** (videogame), 1997, Marco Tarini (designer, developer). Publisher: Voxar LtD.
- Indie game developer (various minor titles).

7.2 Others

- 05/2000 - 08/2000: Civil service (military service substitute) at the Biophysics Institute, CNR: web-master, system administrator.

December 31, 2025