# Riccardo Marin, Ph.D.

#### **Contact:**

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- Germany

#### Personal details:

Place of birth: *Verona, Italy*Date of birth: 24 *September 1991* 

Citizenship: *Italian*Native Language: *Italian* 

• Spoken Languages: English (fluent), German (basic)

Curriculum Vitae - updated: January 5, 2024

#### **Research Interests**

• 3D Geometry Processing, Shape Matching, Virtual Reality, Virtual Humans, Geometric Deep Learning, Spectral shape Analysis, AI, Computer Graphics and Computer Vision.

# Research Profile

I am a Post Doctoral researcher, awarded with a Humboldt Post-Doctoral Fellowship and a Marie Skłodowska-Curie Post-Doctoral Fellowship, at the University of Tübingen in the Real-Virtual Humans group led by Gerard Pons-Moll. Previously, I was a post-doc at Sapienza University of Rome in the GLADIA group led by Emanuele Rodolà, leading a work package of SPECGEO ERC project. I followed the University of Verona's Ph.D program in Computer Science, under the supervision of Umberto Castellani, collecting a Best PhD Thesis award by EG-Italy. I graduated in Computer Science and Engineering at the University of Verona (2017). I work on Spectral Shape Analysis, Shape Matching Geometric Deep Learning, and Virtual Humans. My work appears in top-level conferences and journals (NeurIPS, IJCV, CVPR, ICCV, CGF) and collect prestigious awards (Best Student Paper 3DV20, Top Cited CGF 2020-21, Best paper at NeurReps Workshop). I served as conference organizer (RCD Committee at SIGGRAPH, Volunteer Chair at 3DV18 and STAG21), as a reviewer for several journals and conferences (PAMI, TCVG, CVPR, NeurIPS, ICLR, ICML), obtaining six Outstanding Reviewer Awards. I am involved in many fruitful collaborations (École polytechnique (LIX), Max-Planck Institute (MPI), INRIA Strasbourg, Sapienza University of Rome, University College London (UCL), University of Milan, University of Verona), and projects financed by Google and ERC.

### **Academic Appointments**

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<ul> <li>University of Tübingen, Germany - Computer Science department European (Post doctoral) researcher, MSCA-IF Fellowship (12 months); Advisor: Prof. Gerard Pons-Moll</li> </ul>	08/2023 – 08/2024
<ul> <li>University of Tübingen, Germany - Computer Science department Post Doctoral researcher, Humboldt Foundation Fellowship (12 months); Advisor: Prof. Gerard Pons-Moll</li> </ul>	07/2022 – 06/2023
<ul> <li>Sapienza University of Rome, Italy - Computer Science department Post Doctoral researcher; Advisor: Prof. Emanuele Rodolà</li> </ul>	12/2020 – 06/2022
<ul> <li>Sapienza University of Rome, Italy - Computer Science department Contract/Adjunct Professor Algorithm Design Course (Exerciser and member of the Exam Committee)</li> </ul>	04/2021 – 04/2023
<ul> <li>École Polytechnique (FRA), France - Computer Science department Visiting Student; Advisor: Prof. Maks Ovsjanikov</li> </ul>	09/2019 – 03/2020

# Fellowships and Memberships

Postdoctoral Research Fellow

ELLIS - European Lab for Learning and Intelligent Systems     Member	2023 – present
• Marie Skłodowska-Curie Action HORIZON 2021-2027 Postdoctoral Research Fellow	2023 – present
Alexander von Humboldt Foundation	2022 – 2023

# **Education**

• University of Verona, Italy – Computer Science department 1/10/2017 - 10/06/2021 Ph.D in Computer Science with the additional label of Doctor Europeaus. (with MIUR scolarship; concluded without extention requests) Thesis: Merging, extending and learning representations for 3D shape matching. Advisor: Umberto Castellani Examiners: Alex Bronstein (Technion), Tobias Schreck (Graz University), Stefanie Wuhrer (INRIA Grenoble) Reviewers: Alex Bronstein (Technion), Stefanie Wuhrer (INRIA Grenoble) Awarded Best PhD Thesis in Computer Graphics by Italian Chapter of Eurographics (EG-Italy) • Polytechnic University of Milan, Italy – Computer Science department 07/2020 Attendence at Graduate School on Machine Learning for Non-Matrix Data • University of Milan, Italy – Computer Science department 05/2019 Attendence at Graduate School at Symposium on Geometry Processing 2019 (SGP). • University of Brescia, Italy – Computer Science department 10/2018 Attendence at International School on Graphics and Geometry Processing for Digital Manufacturing (EGIT) at Italian Chapter of Eurographics (STAG). · Standford University, coursera.org 08/2017 - 07/2018Deep Learning Specialization; held by Prof. Andrew Ng Certificate · Alberta University, coursera.org 01/2021 - 04/2021Reinforcement Learning Specialization; held by Prof. Marta White and Prof. Adam White Certificate • University of Verona, Italy 2013 - 2017Laurea Specialistica Degree (2 years degree, M.S. equivalent) in Computer Science and Engineering. Thesis: Augmented Reality for training of pretend play in children with Autism Spectrum Disorder. Grade: 103/110 • University of Verona, Italy 2010 - 2013Laurea Degree (3 years degree, B.S. equivalent) in Computer Science. Grade: 101/110 **Professional Activities / Academic Service** • Member of Program Commitee 2023 ICLR Tiny Papers Track (DEI), Kigali, Rwanda. • Session Chair 19/01/2023 IMPRS-IS Interview Symposium at Max Planck Intelligent-Systems, Tübingen (Germany). • Member of Program Commitee 2022 Symposium on 3D Object Retrieval, *Florence* (*Italy*). • Volunteers Chair 12/2021 STAG 2021, Smart Tools and Applications in Graphics, Roma, Italy. • Committee Member 08/2021 SIGGRAPH Research Career Development Committee, Tokyo, Japan (remotely). Invited Mentor 05/2021 International Conference on Learning Representations (ICLR) 2021, Virtual. • Member of Program Commitee 2021 Workshop on 3D Object Retrieval 2021, Virtual. • SHREC19 Challenge Track Organizer 02/2019 Eurographics 2019 Workshop on 3D Object Retrieval, Genova, Italy.

Track: Correspondence in Humans with Different Connectivity.

Web site

• Volunteers Chair 09/2018

3DV 2018, International Conference on 3D Vision, Verona, Italy.

#### · Volunteer Student

ICCV 2017, Venice, Italy.

Eurographics 2019, Venice, Italy.

#### • High School advanced-class in Computer Skills Teacher

11/2012 – 05/2013

ITCS Aldo Pasoli, Via Girolamo dalla Corte, 15 - 37131 Verona, Italy.

#### • Computer literacy course Teacher

11/2012 - 05/2013

ITCS Aldo Pasoli, Via Girolamo dalla Corte, 15 - 37131 Verona, Italy.

#### Area Chair, Meta-Reviewer

- TinyPapers (ICLR Track); 2023

#### • Reviewer (Conferences)

- BMVC; 2018
- 3DV; 2019 2024
- GMDL; 2019
- NeurIPS; 2020 2023
- ICLR; 2021 2024
- AAAI; 2021
- CVPR; 2021 2024
- ICML; 2021 2024
- 3DOR; 2021, 2022
- MVA; 2021
- ICCV; 2021, 2023
- Siggraph ASIA; 2021, 2023
- EuroGraphics; 2022
- WACV; 2022
- ECCV; 2022
- ICIAP; 2023
- TinyPapers (ICLR Track); 2023
- LoG; 2023

#### Reviewer (Journals)

- IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI); 2022 2024
- IEEE Transactions on Computer Visualization and Computer Graphics (TVCG), 2019 2023
- International Journal of Industrial Ergonomics
- Computer and Graphics Journal (C&G)
- International Journal of Computer Vision (IJCV)
- IEEE/CAA Journal of Automatica Sinica
- Journal of Imaging
- IEEE Transactions on Image Processing

# **Teaching**

• Virtual Humans 10/2023 - 02/2024

*Teaching Assistant*; Exerciser, M.Sc. in Machine Learning, University of Tuebingen. Teaching responsibility: 20 hours, Attendance: ~30, *Tuebingen, Germany*.

#### · Geometry processing and machine learning for geometric data

23/11/2023 - 28/2023

*Lecturer and organizer;* Doctoral School at Bicocca University of Milan. Teaching responsibility: 24 hours, *Milan, Italy*.

#### • Functional Correspondence from Discrete Geometry to Learning

01/07/2023

*Lecturer and organizer*; at the Graduate School of the Symposium on Geometry Processing 2023. Length: 1 hour, *Genoa, Italy*.

#### • Tutorial on Inverse Computational Spectral Geometry

23/05/2022

Lecturer and organizer; at ICIAP 2021.

Length: 4 hours, Attendance: ~30, Lecce, Italy.

25/04/2022

#### • Tutorial on Inverse Computational Spectral Geometry

Lecturer and organizer; at EuroGraphics 2022.

Length: 4 hours, Attendance: ~180, Reims, France.

#### • Numerical methods for Computer Science

02/2022 - 04/2023

Assistant Professor; Lecturer and Exerciser, M.Sc. in Computer Science, Sapienza University of Rome. Teaching responsibility: 20 hours, Enrollment: ~10 students, Roma, Italy.

### · Algorithm Design

02/2022 - 04/2023

*Adjunct Professor*; Exerciser and member of the Exam Committee, M.Sc. in Computer Science, Sapienza University of Rome. Teaching responsibility: 24 hours, Enrollment: ~100 students, *Roma, Italy*.

# • Course on Data Science for High-School

01/02/2021 - 07/02/2021

*Teacher and organizer;* School-work learning programme with CD: 50/50 association at the High School Morgagni.

Teaching responsibility: 40 hours, Attendance: 26, Rome, Italy.

# • Tutorial on Spectral Geometry in Practice

30/11/2021

*Lecturer and organizer*; at the International Conference on 3D Vision 2021. Length: 4 hours, Attendance: ~250, *London*, *United Kingdom*.

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#### · Algorithm Design

04/2021 - 04/2022

*Adjunct Professor*; Exerciser and member of the Exam Committee, M.Sc. in Computer Science, Sapienza University of Rome. Teaching responsibility: 24 hours, Enrollment: ~100 students, Roma, Italy.

#### • Spectral Shape Analysis for 3D matching

06/2020

*Lecturer and Organizer*, Ph.D. School in Computer Science, University of Verona, Algorithm Design. Teaching responsibility: 6 hours, Enrollment: ~20 students, *Verona*, *Italy*.

#### • Pattern Recognition

03/2019 - 06/2019

*Tutor student*, Master degree in Computer Science and Computer Engineering, University of Verona. *Verona, Italy*.

# • Image Processing II

11/2018 - 02/2019

*Tutor student*, Master degree in Computer Science and Computer Engineering, University of Verona. *Verona, Italy*.

#### • Introduction to Programming

03/2018 - 06/2018

Tutor student, Bachelor degree in Bioinformatics, University of Verona. Verona, Italy.

# **Honors and Awards**

# • Best paper in Topology and Graphs Category

16/12/2023

at NeurIPS 2023 Workshop on Symmetry and Geometry in Neural Representations (NeurReps) Paper title: *Spectral Maps for Learning on Subgraphs* 

#### · Outstanding Reviewer Award

2022

at The Conference on Neural Information Processing Systems (NeurIPS 2023)

# at the Italian Chapter of EuroGraphics (EG-Italy)

18/11/2022

 Outstanding Reviewer Award at The Conference on Neural Information Processing Systems (NeurIPS 2022)

• Matteo Dellepiane Award for Best PhD Thesis in Computer Graphics

2022

# Outstanding Reviewer Award

2022

### at The IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR 2022)

#### • Top Cited Article 2020-2021 Award

2022

Computer Graphics Forum Journal

Paper title: FARM: Functional Automatic Registration Method for 3D Human Bodies

#### · Outstanding Reviewer Award

2021

at the International Conference on 3D Vision (3DV 2021)

### · Outstanding Reviewer Award

2021

at the International Conference on Learning Representations (ICLR 2021)

• Best Student Paper Award 2020 at the International Conference on 3D Vision (3DV 2020). Paper title: Instant recovery of shape from spectrum via latent space connections Outstanding Reviewer Award 2020 at the International Conference on 3D Vision (3DV 2020) • Best Poster in Computer Science 07/05/2018 at the University of Verona's PhD Day Event Poster title: FARM: Functional Automatic Registration Method for 3D Human Bodies **Funding and Grants** • Marie Skłodowska-Curie Post-Doctoral Fellowship (MSCA-2022-PF-EF) 01/08/2023 - 01/08/2024 Project: CoMBo - Correspondence through Millions Bodies: a large-scale, functional, and implicit datadriven method for 3D Humans matching Funding: European Commission HORIZON 2021-2027. (~87K€) Role: Fellowship Holder (Researcher) Host: Prof. G. Pons-Moll; 12 months • Alexander von Humboldt Postdoctoral Fellowship 01/07/2022 - 30/06/2023 Project: Functional shape matching for implicit representations Funding: Alexander von Humboldt Foundation (~36K€) Role: Fellowship Holder Host: Prof. G. Pons-Moll; 12 months • Sapienza Research Starting Grant 2022 - Type 2 24/10/2022 Project: "Functional shape matching for implicit representations" Funding: Sapienza University of Rome (~2.3K€) Role: Principal Investigator; 12 months • Imminent Research Grant 05/04/2022 Project: "Incremental Parallel Inference for Machine Translation" Funding: Translated s.r.l. (20K€) Role: Co-PI; 12 months Funds for international mobility - long periods 09/2019 - 03/2020 Funding: University of Verona (3.5K€); 6 months • MIUR Scholarship for pursuing a PhD in Computer Science at University of Verona. 2017 Funding: ~45k €, 3 years **International Research Visits** • University of Tübingen (DE) 02-04/05/2022 Research visit (~3 days); collaborator *Prof. Gerard Pons-Moll*. • École polytechnique (FRA) 05/09/2019 - 13/03/2020 Research visit (~6 months); collaborator *Prof. Maks Ovsjanikov*. • University College London (UK) 23-28/06/2018 Research visit (~1 week); collaborator *Prof. Niloy Mitra*. **Invited Talks and Seminars** 23

THE THIRD WITH COMMITTEE	
• Connecting 3D Virtual Humans: from geometry to interacting avatars University of Turin; hosted by Prof. A. Fiandrotti	02/11/2023
• <i>Toward Relational Virtual Humans</i> Bicocca, University of Milan; hosted by <i>Dr. S. Melzi</i>	29/06/2023
• Toward Relational Virtual Humans University of Verona; hosted by Prof. U. Castellani	27/06/2023
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• The researcher's job 24/03/2023 Istituto di Istruzione Superiore Evangelista Torricelli, Milano

<ul> <li>Merging, extending and learning representations for 3D shape matching Smart Tools and Applications in Graphics (STAG), Cagliari</li> </ul>	18/11/2022
<ul> <li>Data-driven spectral analysis for practical geometry processing Pi School of AI, Rome</li> </ul>	05/05/2022
• Data-driven spectral analysis for practical geometry processing Tubingen University; hosted by <i>Prof. G. Pons-Moll.</i>	03/05/2022
• Data-driven spectral analysis for practical geometry processing Universitat Pompeu Fabra (UPF); hosted by <i>Prof. C. Ballester.</i>	31/03/2022
• <i>Digital Humans: minds and bodies</i> The Sapienza School for Advanced Studies; hosted by <i>Prof. E. Rodolà</i> .	11/02/2022
When the sun goes down: a story on telling stories     DiDo Workshop, Sapienza University of Rome	12/11/2021
<ul> <li>Functional Matching         DiDo Workshop, Sapienza University of Rome     </li> </ul>	11/11/2021
Digital Humans     OpenDI, Sapienza University of Rome	19/04/2021
• Functional Maps and Non-Rigid Registration: A crash course Inria Strasbourg; hosted by Prof. S. Cotin.	29/03/2021
• Digital Humans: minds and bodies The Sapienza School for Advanced Studies; hosted by Prof. E. Rodolà.	02/03/2021
• Correspondence Learning via Linearly-invariant Embedding Sapienza University of Rome; hosted by Prof. E. Rodolà.	20/11/2020
• Functional template based matching for human bodies. École polytechnique; hosted by <i>Prof. P. Memari</i> .	04/03/2020
• <i>Instant recovery of shape from spectrum via latent space connections</i> International Conference on 3D Vision (3DV), 2020	25/11/2020
• FARM: Functional Automatic Registration Method for 3D Human Bodies. Eurographics (EG), 2020	29/05/2019
• <i>POP: full Parametric modelling estimation for Occluded People.</i> The 12th Eurographics Workshop on 3D Object Retrieval (3DOR), 2019	05/05/2019
• Introduction to Spectral Graph Theory: from Fourier to 3D models. University of Verona; hosted by Prof. G. Menegaz.	18,19,20/12/2018
Participation in Research projects	
• Fair Geometry: Toward Algorithmic Debiasing in Geometric Deep Learning. Role: Researcher.	2021 - present
Funding: Google Research Coordinator: Prof. E. Rodolà ("La Sapienza" University of Rome).	
• SPECGEO - Spectral geometric methods in practice.  Role: Researcher (leading the work package WP4 - Deep learning applications);  Funding: ERC Starting Grant (Horizon2020).  Coordinator: Prof. F. Rodolà ("La Sanjonza" University of Romo)	2020 - present

• Nuovi approcci di geometric deep learning ed applicazioni cross-dominio. New geometric deep learning approaches and cross-domain applications.

Coordinator: Prof. E. Rodolà ("La Sapienza" University of Rome).

01/12/2021 - 30/06/2022

Role: PostDoc Researcher.

Funding: ERC Starting Grant SPECGEO (41K)

Coordinator: Prof. E. Rodolà ("La Sapienza" University of Rome).

• Metodi di predizione strutturata tramite geometric deep learning e nuove rappresentazioni spettrali. New methods and spectral representations for structured prediction via geometric deep learning.

01/12/2020 - 01/12/2021

Role: PostDoc Researcher.

Funding: ERC Starting Grant SPECGEO (25K)

Coordinator: Prof. E. Rodolà ("La Sapienza" University of Rome).

• EXPROTEA - Exploring Relations in Structured Data with Functional Maps.

2019 - 2022

Role: Researcher (External Collaborator); Funding: ERC Starting Grant (Horizon2020).

Coordinator: Prof. M. Ovsjanikov (École Polytechnique).

# Supervising and mentoring activities

- Graduate Students (official co-advisor)
  - Nikita Larichev, 2022, (Siegen, Thesis)
  - Luis Mautone, 2022, (Rome, Thesis)
  - Valentino Maiorca, 2021 (Rome, Thesis)
  - Silvio Severino, 2021 (Rome, Thesis)
  - Marco Pegoraro, 2021 (Verona, Thesis) Awarded Best Thesis at the Italian Chapter of Eurographics
  - Filippo Bardon, 2019 (Verona, Thesis)
- Research Assistant
  - Yun Kuan Su, 2023, (Tuebingen)

# Participation in industrial innovation

- Automatic extraction of anthropometric measurements from digital 3D scan of human bodies, (phase 1). Role: Researcher. Supported by: *Igoodi S.r.l.* 27/11/2018 15/02/2019
- Automatic extraction of anthropometric measurements from digital 3D scan of human bodies, (phase 2). Role: Researcher. Supported by: Igoodi S.r.l. 01/08/2019 31/01/2020

#### Other

• *CD*: 50/50, *No-profit association for promoting gender equality and diversity in STEM* Role: Co-founder and lecturer.

Website 09/2021 - present

# Media Coverage

 $\bullet$  Italian ministry of digital innovation lists CD:50/50 among associations addressing the digital divide in the Italian population

Website 2021

• The magazine of University of Verona reports Marco Pegoraro's Best Italian Master Thesis in Computer Graphics Award for our work on inverse spectral geometry

Website 2021

# **List of Publications**

Bibliometric indices (Scopus) compared to National Scientific Habilitation (ASN) for Computer Science (01/B1):

h-index: 9 (ASN Associate: 7/ Full: 10)

Number of citations: 425 (ASN Associate: 157 / Full: 304) Number of Journals: 9 (ASN Associate: 4 / Full: 9)

# **Journals**

1. Filippo Maggioli, **Riccardo Marin**, Simone Melzi, Emanuele Rodolà. *MoMaS: Mold Manifold Simulation for real-time procedural texturing*. Computer Graphics Forum (CGF), presented at Pacific Graphic (PG), 2022.

- 2. Marco Pegoraro, Simone Melzi, Umberto Castellani, Emanuele Rodolà, **Riccardo Marin**. *Localized Shape Modelling with Global Coherence: An Inverse Spectral Approach*. Computer Graphics Forum (CGF), presented at Symposium on Geometry Processing (SGP), 2022.
- 3. Pietro Musoni, **Riccardo Marin**, Simone Melzi, *A Functional Skeleton Transfer*. ACM in Computer Graphics and Interactive Techniques (PACMCGIT), 2021, presented at the Symposium of Computer Animation (SCA2021).
- 4. **Riccardo Marin**, Arianna Rampini, Umberto Castellani, Emanuele Rodolà, Maks Ovsjanikov, Simone Melzi. *Spectral Shape Recovery and Analysis Via Data-driven Connections*, International Journal of Computer Vision, 2021
- 5. Letizia Squarcina, Guido Nosari, **Riccardo Marin**, Umberto Castellani, Marcella Bellani, Carolina Bonivento, Franco Fabbro, Massimo Molteni, Paolo Brambilla. *Automatic classification of autism spectrum disorder in children using cortical thickness and support vector machine*. Brain and Behavior, 2021
- 6. Eleonora Tagliabue, Diego Dall'Alba, Micha Pfeiffer, Marco Piccinelli, **Riccardo Marin**, Umberto Castellani, Stefanie Speidel, Paolo Fiorini. *Data-driven Intra-operative Estimation of Anatomical Attachments for Autonomous Tissue Dissection*. IEEE Robotics and Automation Letters (RA-L), 2021
- 7. Roberto M.Dyke, Yu-Kun Lai, Paul L.Rosin, Stefano Zappalà, Seana Dykes, Daoliang Guo, Kun Li, **Riccardo Marin**, Simone Melzi, Jingyu Yang. *SHREC'20: Shape correspondence with non-isometric deformations*. Computer & Graphics, 2020.
- 8. Simone Melzi, **Riccardo Marin**, Pietro Musoni, Filippo Bardon, Marco Tarini, Umberto Castellani. *Intrin-sic/extrinsic embedding representation for functional remeshing of 3D shapes*. Computer & Graphics, 2020.
- 9. **Riccardo Marin**, Simone Melzi, Emanuele Rodolà, Umberto Castellani. *FARM: Functional Automatic Registration Method for 3D Human Bodies*. Computer Graphics Forum (CGF), 2019. Presented at Eurographics (EG), 2020. [**Top Cited Article in CGF 2020-2021** Award]

# **Conference Proceedings**

- 1. Dimitrije Antic, Garvita Tiwari, Batuhan Ozcomlekci, **Riccardo Marin**, Gerard Pons-Moll. *CloSe: A 3D Clothing Segmentation Dataset and Model*. International Conference on 3D Vision (3DV), 2024.
- 2. Vladimir Guzov, Julian Chibane, **Riccardo Marin**, Yannan He, Torsten Sattler, Gerard Pons-Moll. *Interaction Replica: Tracking human-object interaction and scene changes from human motion*. International Conference on 3D Vision (3DV), 2024.
- 3. Yuxuan Xue, Bharat Bhatnagar **Riccardo Marin**, Nikolaos Sarafianos, Yuanlu Xu, Tony Tung, Gerard Pons-Moll. *NSF: Neural Surface Fields for Human Modeling from Monocular Depth*. International Conference on Computer Vision (ICCV), 2023.
- 4. Ilya A. Petrov, **Riccardo Marin**, Julian Chibane, Gerard Pons-Moll. *Object pop-up: Can we infer 3D objects and their poses from human interactions alone?*. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023.
- 5. Andrea Santilli, Silvio Severino, Emilian Postolache, Valentino Maiorca, Michele Mancusi, **Riccardo Marin**, Emanuele Rodolà. *Accelerating Transformer Inference for Translation via Parallel Decoding*. 61st Annual Meeting of the Association for Computational Linguistics (ACL), 2023.
- 6. Donato Crisostomi, Simone Antonelli, Valentino Maiorca, Luca Moschella, **Riccardo Marin**, Emanuele Rodolà. *Metric Based Few-Shot Graph Classification*. Learning on Graphs Conference (LoG), 2022.

- 7. Ramana Subramanyam Sundararaman, **Riccardo Marin**, Emanuele Rodolà, Maks Ovsjanikov. *Reduced Representation of Deformation Fields for Effective Non-rigid Shape Matching*. Conference on Neural Information Processing Systems (NeurIPS), 2022.
- 8. Giovanni Trappolini, Luca Cosmo, Luca Moschella, **Riccardo Marin**, Simone Melzi, Emanuele Rodolà. *Shape registration in the time of transformers*. Conference on Neural Information Processing Systems (NeurIPS), 2021.
- 9. Eleonora Tagliabue, Marco Piccinelli, Diego Dall'Alba, Juan Verde, Micha Pfeiffer, **Riccardo Marin**, Stefanie Speidel, Paolo Fiorini, Stéphane Cotin. *Intra-operative Update of Boundary Conditions for Patient-specific Surgical Simulation*, MICCAI, 2021
- 10. **Riccardo Marin**, Marie-Julie Rakotosaona, Simone Melzi, Maks Ovsjanikov. *Correspondence Learning via Linearly-invariant Embedding*. Conference on Neural Information Processing Systems (NeurIPS), 2020.
- 11. **Riccardo Marin**, Arianna Rampini, Umberto Castellani, Emanuele Rodolà, Maks Ovsjanikov, Simone Melzi. *Instant recovery of shape from spectrum via latent space connections*. International Conference on 3D Vision (3DV), 2020. [Best Student Paper Award]
- 12. **Riccardo Marin**, Simone Melzi, Emanuele Rodolà, Umberto Castellani. *High-Resolution Augmentation for Automatic Template-Based Matching of Human Models*. International Conference on 3D Vision (3DV), 2019.

# Workshops and Short papers

- 1. Marco Pegoraro, **Riccardo Marin**, Arianna Rampini, Simone Melzi, Luca Cosmo, Emanuele RodolÃă. *Spectral Maps for Learning on Subgraphs*. NeurIPS 2023 Workshop on Symmetry and Geometry in Neural Representations, 2023. [**Best Paper Award in Topology and Graphs**]
- 2. Roberto M. Dyke, Feng Zhou, Yu-Kun. Lai, Paul L. Rosin, Daoliang Guo, Kun Li, **Riccardo Marin**, Jingyu Yang. *SHREC'20: Non-rigid Shape Correspondence of Physically-Based Deformations*. 13th Workshop on 3D Object Retrieval (3DOR), 2020.
- 3. **Riccardo Marin**, Simone Melzi, Niloy Mitra, Umberto Castellani. *POP: full Parametric modelling estimation for Occluded People*. The 12th Eurographics Workshop on 3D Object Retrieval (3DOR), 2019.
- 4. **Riccardo Marin**, Simone Melzi, Pietro Musoni, Filippo Bardon, Marco Tarini, Umberto Castellani. *CMH: Coordinates Manifold Harmonics for Functional Remeshing*. The 12th Eurographics Workshop on 3D Object Retrieval (3DOR), 2019.
- 5. Simone Melzi, **Riccardo Marin**, Pietro Musoni, Umberto Castellani, Marco Tarini. Visual Assessments of Functional Maps. Poster at Symposium on Geometry Processing (SGP), 2019.
- 6. Simone Melzi, **Riccardo Marin**, Emanuele Rodolà, Umberto Castellani, Jing Ren, Adrien Poulenard, Peter Wonka, Maks Ovsjanikov. *SHREC'19: Matching Humans with Different Connectivity*, the 12th Eurographics Workshop on 3D Object Retrieval (3DOR), 2019.

# ArXiV

1. **Riccardo Marin**, Enric Corona, Gerard Pons-Moll. *Geometric Awareness in Neural Fields for 3D Human Registration*. 2023.