SARA MOCCIA

Curriculum vitae - June, 2025

Outline

1 PERSONAL DATA

Citizenship:	Italian
Fiscal Code:	MCCSRA90P42A662G
Place e date of birth:	September, 2nd 1990 - Bari (BA), Italy
Residence:	Via I Maggio 48, 63822 Porto San Giorgio (FM), Italy
Phone number:	+39 3479610781
E-mail:	sara.moccia1990@gmail.com
ORCID ID:	https://orcid.org/0000-0002-4494-8907
Scopus:	https://www.scopus.com/authid/detail.uri?authorId=57192919602
WoS:	https://publons.com/researcher/1497085/sara-moccia/

2 CURRENT POSITION

From 4/2024: **Associate Professor in Bioengineering**, Department of Innovative Technologies in Medicine and Dentistry, Università degli Studi 'G. d'Annunzio' Chieti - Pescara.

From 06/2024: **Member of the PhD Board** for the "PhD in Engineering Science", Università degli Studi 'G. d'Annunzio' Chieti - Pescara.

2.1 National Scientific Habilitation

National Scientific Habilitation as Associate Professor in Bioengineering (Abilitazione Scientifica Nazionale di cui all'articolo 16 della Legge 30.12.2010, n. 240 come Professore di II Fascia nel settore Bioingegneria (09/G2))
validity : 06/06/2022 – 06/06/2033

National Scientific Habilitation as Associate Professor in Computer Engineering (Abilitazione Scientifica Nazionale di cui all'articolo 16 della Legge 30.12.2010, n. 240 come Professore di II Fascia nel settore Ingneria Informatica (09/H1))
validity : 07/01/2023 – 07/01/2034

3 EDUCATION

16/05/2018: **European PhD in Bioengineering**
Department of Advanced Robotics, Istituto Italiano di Tecnologia, Genova, Italy
Department of Electronics, Information and Bioengineering, Politecnico di Milano, Milano, Italy
Thesis: "Supervised tissue classification in optical images: towards new applications of surgical data science"
Supervisors: Dr. Leonardo S. Mattos, Prof. Elena De Momi
from 01/05/2015 to 30/04/2018
Grade: cum laude

From 01/10/2016 to 01/03/2017: **Visiting PhD**
Department of Computer-Assisted Medical Intervention, German Cancer Research Center, Heidelberg, Germania
Supervisor: Prof. Lena Maier-Hein

18/12/2014: **MSc degree in Biomedical Engineering**
Department of Electronics, Information and Bioengineering, Politecnico di Milano, Milano, Italy
Thesis: "Statistical segmentation techniques of liver metastases and necroses in FDG-PET for the automatic evaluation of pre and post thermoablation PET/CT studies"
Supervisor: Prof. Giuseppe Baselli

from 01/09/2012 to 18/12/2014
Grade: 110/110 cum laude

4 PROFESSIONAL EXPERIENCE

From 01/02/2024 to 31/03/2024 **Assistant Professor** (Ricercatrice a tempo determinato del tipo di cui all'articolo 24 comma 3 lettera b) della legge n. 240/2010)
The BioRobotics Institute and Department of Excellence in Robotics & AI, Scuola Superiore Sant'Anna, Italy.

From 01/02/2021 **Junior Assistant Professor** (Ricercatrice a tempo determinato del tipo di cui all'articolo 24 comma 3 lettera a) della legge n. 240/2010)
The BioRobotics Institute and Department of Excellence in Robotics & AI, Scuola Superiore Sant'Anna, Italy.

From 01/05/2018 to 31/01/2021: **PostDoc Researcher**
Department of Information Engineering, Università Politecnica delle Marche, Ancona, Italy Scientific coordinator: Prof. Emanuele Frontoni.

From 01/05/2018 to 31/01/2021: **Affiliated Researcher**
Department of Advanced Robotics, Istituto Italiano di Tecnologia, Genova, Italy Scientific coordinators: Prof. Darwin Caldwell, Dr. Leonardo S. Mattos.

From 01/02/2020 to 31/05/2020: **Affiliated Researcher**
Escola de Engenharia Dept. Electrónica Industrial, Universidade do Minho, Braga, Portugal
Scientific coordinator: Prof. Cristina P. Santos.

5 TEACHING ACTIVITIES

5.1 PhD COURSES

1. Academic years 2021/2022 and 2022/2023: **Lecturer** for the course "Deep learning for medical image analysis" inside the PhD in BioRobotics, Scuola Superiore Sant'Anna (30 hours, 3 ECTS, >15 students)
2. Academic year 2019/2020: **Lecturer** for the module "Computer vision and deep learning with a focus on endoscopy" during the PhD course "Embodiment of AI" (6 hours) inside the PhD in Mathematics and Computer Science, Università della Calabria
3. Academic year 2019/2020: **Lecturer** for the module "Deep learning for the analysis of pre- and intra-operative images" during the PhD course "3D tissue segmentation, modelling and deformation: From pre-operative to intra-operative image analysis" (10 hours) inside the PhD in Bioengineering, Politecnico di Milano.

5.2 MSc AND BSc COURSES

From Academic year 2024/2025:

1. **Lecturer** for the course "Data Mining", MSc in Biomedical Engineering, Università degli Studi 'G. d'Annunzio' Chieti - Pescara (60 hours, 6 ECTS, $\sim$ 35 students)
2. **Lecturer** for the course "Health remote surveillance and virtual systems", MSc in Biomedical Engineering, Università degli Studi 'G. d'Annunzio' Chieti - Pescara (50 hours, 5 ECTS, $\sim$ 35 students)

3. **Lecturer** for the course "Computer technologies in dentistry", MSc in Dentistry, Università degli Studi 'G. d'Annunzio' Chieti - Pescara (24 hours, 2 ECTS, $\sim$ 35 students)

Academic year 2023/2024:

1. **Lecturer** for the course "Data Mining", MSc in Biomedical Engineering, Università degli Studi 'G. d'Annunzio' Chieti - Pescara (30 hours, 3 ECTS, $\sim$ 30 students)
2. **Lecturer** for the course "Modelling of biological processes in natural and artificial organs", MSc in Biomedical Engineering, Università degli Studi 'G. d'Annunzio' Chieti - Pescara (40 hours, 4 ECTS, $\sim$ 5 students)

Academic year 2022/2023:

1. **Co-Lecturer** for the course "Biomechanics of human motion", MSc in Bionics Engineering, Università di Pisa (15 hours, 2 ECTS, $\sim$ 20 students)
2. **Co-Lecturer** for the course"Neuroprotesi e medicina biolettronica" inside the course "Medicine Enhanced by Engineering Technology – MEET", MSc in Medicine and Surgery, Università degli Studi di Pavia, Scuola Superiore Sant'Anna e Scuola Universitaria Superiore IUSS di Pavia (12 hours, 2 ECTS, 10 students)
3. **Lecturer** for the course "Introduction to Machine Learning", Scuola Superiore Sant'Anna (20 hours, 3 ECTS, $\sim$ 20 students)

Academic years 2020/2021 and 2021/2022:

1. **Lecturer** for the course "Elementi di Informatica", BSc in Biomedical Engineering, Università Politecnica delle Marche (72 hours, 9 ECTS, $>$ 150 students)

5.3 ITALIAN MASTERS

Academic year 2022/2023:

1. **Lecturer** during the *Master I livello* in "Executive in Quantum Machine Learning" Università Ca' Foscari di Venezia (21 hours, $\sim$ 20 students)
2. **Lecturer** during the *Master I Livello* in "Specialista nell'ottimizzazione e sviluppo di apparecchiature, sequenze e tecniche di studio di Risonanza Magnetica" on the topic "Intelligenza Arificiale", Università degli Studi di Firenze (6 hours, $\sim$ 15 students)

5.4 ORGANIZATION OF SCHOOLS

2023:

- **Co-organizer** of the Seasonal School "From minimally invasive surgery to nanorobotics A voyage in the field of intervention robotics", Scuola Superiore Sant'Anna (`https://www.santannapisa.it/it/seasonalschool/from-minimally-invasive-surgery-to-nanorobotics`).
- **Co-organizer** of the Spring School "Ethos and Tekhne'", Scuola Superiore Sant'Anna (`https://www.santannapisa.it/en/news/higher-education-spring-school-ethos-tekhne`).

2021:

- **Member of the organization committee** of the IV International School on Deep Learning (DEEP LEARN 2021) - `https://irdta.eu/deeplearn2021s/organizingcommittee/`

6 SUPERVISION OF PhD STUDENTS

Supervisor of:

1. Emanuele Cardinale - PhD Student (Università degli Studi Gabriele d'Annunzio) - from 2025
2. Gaia di Filippo - PhD Student (Università degli Studi Gabriele d'Annunzio) - from 2025
3. Elena Campili - PhD Student (Università degli Studi Gabriele d'Annunzio) - from 2025
4. Greta Di Marino - PhD Student (Università degli Studi Gabriele d'Annunzio) - from 2024
5. Deborah Cattafesta - PhD Student (Università degli Studi di Modena e Reggio Emilia) - from 2025
6. Carolina Gaspar Pinto Ramos Correia - PhD Student (Scuola Superiore Sant'Anna) - from 2021 to 2024
7. Angelo Lasala - PhD Student (Scuola Superiore Sant'Anna) - from 2022 to 2025
8. Sara Mazzucato - PhD Student (Scuola Superiore Sant'Anna) - from 2022 to 2025

and co-supervisor/ tutor of:

1. Daniela De Luca - PhD Student (Scuola Superiore Sant'Anna) - from 2021
2. Dr. Maria Chiara Fiorentino - PhD Student (Università Politecnica delle Marche) - from 2019 to 2022
3. Dr. Alessandro Casella - PhD Student (Politecnico di Milano) from 2019 to 2022
4. Dr. Lucia Migliorelli - PhD Student (Università Politecnica delle Marche) - from 2018 to 2021

7 FELLOWSHIP

- From 01-02-2020 to 31-05-2020: Research fellow for 4 months at the Escola de Engenharia Dept. Electrónica Industrial, Universidade do Minho (Portugal), Prof. Cristina Manuela Peixoto dos Santos.
- From 01-10-2016 to 01-03-2017: Visiting PhD fellow for 5 months at the Department of Computer Assisted Medical Interventions, German Cancer Research Center (Germany), Prof. Lena Maier-Hein.

7.1 AFFILIATION TO SCIENTIFIC SOCIETIES

From 2023: Member of the task force on digital health of the Association for Acute CardioVascular Care (ACVC), European Society of Cardiology (ESC)

From 2019: Fellow (Socio fondatore) of the National Group of Bioengineering (Gruppo Nazionale di Bioingegneria)

8 SCIENTIFIC AWARDS

2021:

- **Athanasiou ABME Student Award**, for the work "A Review on Advances in Intra-operative Imaging for Surgery and Therapy: Imagining the Operating Room of the Future" (P. Zaffino*, S. Moccia*, et al.). The award (500$) recognizes excellence in future leaders of biomedical engineering by awarding the top papers published in Annals of Biomedical Engineering (ABME) written by graduate students and post-doctoral scholars.

2020:

- **Clinical Needs Translational Award (CTA)** for the work "A novel approach based on spatio-temporal features and Random Forest for scar detection using cine cardiac magnetic resonance images" (S. Moccia, et al.). The award (1000 euro) represents a joint initiative between the Working Group on e-Cardiology of the European Society of Cardiology (ESC) and CinC, and it is designed with the aim of promoting and further stimulating the translational component of CinC research to clinical need.

2018:

- **Gruppo Nazionale di Bioingegneria & PATRON** (1200 euro) for the best Italian PhD thesis in Bioenginering.
- **Primaga 2018 – Artificial intelligence applied to the analysis of medical images and videos** (1500 euro) for the work 'Liver-donor steatosis assessment from smartphone images acquired in the OR" (S. Moccia, et. al). The prize, sponsored by Linkverse S.r.l., is intended to award the best work on Artificial Intelligence applied to the analysis of images and videos for candidates that are 35 or younger on June 25th 2018 and are both the first author and presenter of the winning paper.

8.1 SCIENTIFIC AWARDS TO CO-SUPERVISED STUDENTS

- 2023: Premio di Dottorato Dipartimento di ingegneria dell'Informazione - Università di Padova, Gruppo Nazionale di Bioingegneria (1000 euro) to Dr. Maria Chiara Fiorentino for her PhD thesis.
- 2022: Premio Guido Valli ed i suoi allievi, Gruppo Nazionale di Bioingegneria (500 euro) to Riccardo Bendandi for his MSc thesis in Biomedical Engineering.
- 2018: Premio del Laboratorio di Robotica Biomedica e Biomicrosistemi, Università Campus Bio-Medico, Roma, Gruppo Nazionale di Bioingegneria (500 euro) to Simone Foti for his MSc thesis in Biomedical Engineering.
- 2017: Premio Istituto di Biorobotica, Gruppo Nazionale di Bioingegneria (500 euro) to Francesca Prudente for her MSc thesis in Biomedical Engineering.

9 COORDINATION OF RESEARCH PROJECTS

- **Scientific coordinator** of the project "SMARTER-ASD", FISA - Fondo italiano per le scienze applicate, total budget: 1.744.335,47 euro,
`www.mur.gov.it/it/atti-e-normativa/decreto-direttoriale-n-1535-del-19-09-2023`.
From 01-02-2024.
- **Unit and work packace leader** for the project "AIRCARE", Horizon Europe Innovation Action, Grant Agreement No 101137426, unit budget: 330.000,00, total budget: 8.521.393,75 euro,
`https://aircareproject.eu/`.
From 01-02-2024.
- **Scientific coordinator** of the project "Trustworthy hybrid quantum-classical Artificial Intelligence for Medical Image Analysis (ThAI-MIA)", PRIN 2022, total budget: 212.722 euro, SSSA unit budget: 63.344 euro `https://prin.mur.gov.it/Pages/Index/181`.
From 01-06-2023 to 31-03-2024.
- **Scientific coordinator** of the project "Artificial intelligence for preterm infants' healthcare", fellowship "L'Oreal Italia for Women in Science in collaboration with UNESCO", budget: 20.000 euro.
From 01-07-2022 to 30-03-2023.

- **Scientific coordinator** of the project "Riabilitazione e Valutazione degli Esiti Cognitivi Post Covid (RILEGO)", numero CUP J35F20000570002, Bando Ricerca COVID-19 Toscana, total budget: 236.800 euro, SSSA unit budget: 41.000 euro
  `www.regione.toscana.it/-/bando-ricercacovid-19-toscana`.
  From 01-02-2021 to 31-03-2024.
- **Winner** of an Individual Fellowship Marie Skłodowska-Curie Actions - Global Fellowship (MSCA-IF-GF) for the project "ASD-carillon" (GAP-101031553 - 999866689), with host institution University of Victoria (UVic) and Italian istitution Università Politecnica delle Marche, Canada. Total budget: 214.760,00 euro.
  From 08-02-2021 to 08-02-2021[1]

10 INVOLVEMENT IN INTERNATIONAL RESEARCH PROJECTS

2020-2021: **Member of the research unit** of Università Politecnica delle Marche for the project ULTIMATE (ndUstry water-utiLiTy symbIosis for a sMarter wATer society, Horizon 2020 framework, Grant agreement: 869318, `https://cordis.europa.eu/project/id/869318`) (Prof. Francesco Fatone)

2020-2021: **Member of the research unit** of Università Politecnica delle Marche for the project AquaSPICE (Advancing Sustainability of Process Industries through Digital and Circular Water Use Innovations, Horizon 2020 framework, Grant agreement: 958396, `https://cordis.europa.eu/project/id/958396/it`) (Prof. Francesco Fatone)

2018-2019: **Member of the research unit** of University College London for the projects Wellcome/EPSRC Centre for Interventional and Surgical Sciences (WEISS) at UCL (203145Z/16/Z) and EPSRC (EP/N027078/1, EP/P012841/1, EP/P027938/1, EP/R004080/1) (Prof. Danail Stoyanov)

2017-2019: **Member of the research unit** of Politecnico di Milano for the project EDEN2020 (Enhanced Delivery Ecosystem for Neurosurgery in 2020, Horizon 2020 framework, Grant agreement: 688279, `https://cordis.europa.eu/project/id/688279/it`) (Prof.ssa Elena De Momi)

2017-2018: **Member of the research unit** of Carnegie Mellon University for the project National Institue of Health (NIH) (Project ID: R01EB000526)") (Prof. Cameron Riviere)

2016-2017: **Member of the research unit** of German Cancer Research Center for the project COMBIOSCOPY (Computational Biophotonics for Endoscopic Cancer Diagnosis and Therapy, ERC framework, Grant agreement: 637960) (Prof.ssa Lena Maier-Hein)

11 EDITORIAL ACTIVITY

2022: **Associate Editor** for IEEE Transactions on Medical Robotics and Bionics, ISSN 2576-3202, `https://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=8253409`.

2021: **Associate Editor** for Medical and Biological Engineering and Computing, ISSN 1741-0444, `https://www.springer.com/journal/11517`.

From 2019: **Associate Editor** for IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS).

From 2019: **Associate Editor** for IEEE International Conference on Intelligent Robots and Systems (ICRA).

[1] I renounced to carry out the project as I won the assistant professorship in another institution

From 2017: **Reviewer** for scientific journals edited by IEEE, Elsevier, Springer e SPIE, incuding: IEEE Journal of Biomedical and Health Informatics, IEEE Transactions on Biomedical Engineering, IEEE Transactions on Neural Engineering, Medical Image Analysis, Medical and Biological Engineering and Computing, Computer Methods and Programs in Biomedicine, Journal of Medical Internet Research, Journal of Medical Imaging.

12 REVIEWER FOR NATIONAL AND INTERNATIONAL PROJECTS

- from 2024: Reviewer for the Research Council of Finland's - Biomedical engineering review panel `https://www.aka.fi/en/`
- 2023: Reviewer for "ERC Starting Grant 2023 call" (`https://erc.europa.eu/homepage`)
- 2022: Reviewer for "Dutch Research Council (NWO) — Domain Applied and Engineering Sciences (AES)" (`https://www.nwo.nl/en/applied-and-engineering-sciences-aes`)

13 ORGANIZATION OF SCIENTIFIC CONFERENCES

2024 and 2025:

- **Program Chair**, International Conference on Information Processing in Computer-Assisted Interventions (IPCAI).

2023:

- **Track Chair** for the track "Sensor Systems: Signals, Processing and Interfaces", IEEE SENSORS 2023 (`https://2023.ieee-sensorsconference.org/`).
- **Member of the organization committee** of the XIII Conference on New Technologies for Computer and Robot Assisted Surgery (CRAS 2023)

2022:

- **Track Chair** for the track "Sensor Systems: Signals, Processing and Interfaces", IEEE SENSORS 2022 (`https://2022.ieee-sensorsconference.org/track-chairs/`).
- **Scientific co-chair and organizer** of the international workshop AI-care: Artificial Intelligence for preterm infants' healthCare (`https://sites.google.com/view/ai-care/home?authuser=0`) during the 21st International Conference on Image Analysis and Processing (ICIAP 2021)
- **Member of the organization committee** of the XII Conference on New Technologies for Computer and Robot Assisted Surgery (CRAS 2022)

2021:

- **Scientific co-chair and organizer** of the Grand Challenge FetReg: Placental Vessel Segmentation and Registration in Fetoscopy, International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI 2021) - `https://fetreg2021.grand-challenge.org/`
- **Scientific co-chair and organizer** of the international workshop Unlocking the potential of Artificial Intelligence for Ultrasound image processing, IEEE International Conference Biomedical and Health Informatics (IEEE BHI 2021) - `https://www.bhi-bsn-2021.org/?page_id=3346`
- **Member of the organization committee** of the XI Conference on New Technologies for Computer and Robot Assisted Surgery (CRAS 2021)

2020:

- **Scientific co-chair and organizer** of the workshop Integrating Sensor Fusion and Perception for Human-robot Interaction, IEEE International Conference on Robot and Human Interactive Communication (IEEE RO-MAN 2020) - `https://sites.google.com/view/romanhri/`
- **Member of the organization committee** of the X Conference on New Technologies for Computer and Robot Assisted Surgery (CRAS 2020)

2019:

- **Member of the organization committee** of the IX Conference on New Technologies for Computer and Robot Assisted Surgery (CRAS 2019)

14 INVITED SPEAKER IN SCIENTIFIC CONFERENCES

1. **Invited speaker** to the workshop "Robotic systems for surgery training and assistance: recent advances and future perspectives" during the "Hamlyn Symposium on Medical Robotics 2023" with the talk "Surgical Data Science for Trustworthy Decision Support and Context Awareness", London, 29-06-2023.
2. **Invited speaker** to the "Acute CardioVascular Care Congress" of the European Society of Cardiology (ESC) with the talk "Artificial intelligence: a key enabling technique for digital health in cardiology", Marseille, 25-03-2023.
3. **Invited speaker** to the webinar "AI in Surgery" organized by the international association "Sharing Progress in Cancer Care" with the talk "Methodological innovation and ethical aspects of AI in surgery: two sides of the same coin", online, 25-01-2023
4. **Invited speaker** to the Congresso Nazionale del GRUPPO LOMBARDO OTORINOLARINGOIATRI (GLO) with the talk "Deep learning in videomics", Milano, 22-09-2022.
5. **Invited speaker** to the Congresso Nazionale della Società Polispecialistica Italiana dei Giovani Chirurghi (SPIGC) with the talk "Artificial Intelligence in Colonoscopy", online, 20-09-2021.
6. **Invited speaker** to the national congress "DIGESTIVE SURGERY: SURGEON BETWEEN SOUL AND ROBOT" with the talk "Il deep learning per l'analisi di video acquisiti durante procedure chirurgiche", Roma, 02-12-2021.
7. **Invited speaker** to the "International Conference on New Technologies for Computer and Robot Assisted Surgery (CRAS)" with the talk "Surgical data science", Genova, 21-03-2019
8. **Invited speaker** to the "27th European Conference on General Thoracic Surgery" with the talk "Machine learning in Thoracic Surgery: Experience using DLCO", Dublin, 09-06-2019.

15 INSTITUTIONAL AND SERVICE ACTIVITIES

15.1 INSTITUTIONAL ROLES

- From 10/2025: **Member of the Working group** on the Guidelines for the Use of Artificial Intelligence at Universit'a degli Studi 'G. d'Annunzio' Chieti - Pescara.
- From 06/2024: **Member of the PhD Board** or the "PhD in Engineering Science", Universit'a degli Studi 'G. d'Annunzio' Chieti - Pescara.
- From 01/2021: **Faculty member** of The BioRobotics Institute, Scuola Superiore Sant'Anna

- From 06/2021 to 05/2022: **Member of the PhD Board** for the PhD in BioRobotics, Scuola Superiore Sant'Anna di Pisa with the role of **recording secretary**

16 THIRD MISSION

Technology transfer

- From 2023: Founder of GAIA srl (www.gaia.srl), spin-off of Università di Macerata
- 2025: **Scientific coordinator** for the research agreement "Attività di studio e approfondimento circa algoritmi di intelligenza artificiale per l'analisi dei dati medici" with Predict SPA (Italia)
- 2025: **Scientific coordinator** for the research agreement "Design of AI algorithms for intra-operative image analysis in orthopaedics" with Cyber Surgery SL (Spain)

University curriculum counsellor for high school students

2023:

- "AIxGIRLS – Summer Tech Camp", Fineco Asset Management, Donne 4.0, Daxo Group, link

2022:

- "STEM: le ragazze si mettono in gioco", Scuola Superiore Sant'Anna link
- "AIxGIRLS – Summer Tech Camp", Fineco Asset Management, Donne 4.0, Daxo Group, link
- "Giornata di Orientamento 2022: STUDIARE INGEGNERIA ALLA SCUOLA SANT'ANNA", link
- "EELISA roundtable - Women who make science happen", link

2021

- BRIGHT-NIGHT 2021, link

17 SCIENTIFIC PUBLICATIONS

INTERNATIONAL JOURNALS

[1] A. Lasala, M. C. Fiorentino, A. Bandini, and **S. Moccia**. "Conditional Latent Diffusion Models for PLAX Echocardiographic Image Synthesis: A Geometric-Anatomical Guided Approach". In: *IEEE Transactions on Medical Robotics and Bionics* (2025).

[2] M. C. Fiorentino, **S. Moccia**, M. D. Cosmo, E. Frontoni, B. Giovanola, and S. Tiribelli. "Uncovering ethical biases in publicly available fetal ultrasound datasets". In: *npj Digital Medicine* 8.1 (2025), p. 355.

[3] F. P. Villani, M. C. Fiorentino, L. Federici, C. Piazza, E. Frontoni, A. Paderno, and **S. Moccia**. "A Deep-Learning Approach for Vocal Fold Pose Estimation in Videoendoscopy". In: *Journal of Imaging Informatics in Medicine* (2025), pp. 1–11.

[4] S. Leccabue, **S. Moccia**, T. J. Royston, and E. G. Caiani. "Estimating shear modulus of isotropic materials from scanning laser Doppler vibrometry via convolutional neural networks". In: *Journal of the Mechanical Behavior of Biomedical Materials* (2025), p. 107079.

[5] M. Di Cosmo, G. Migliorelli, F. P. Villani, M. Francioni, A. Muçaj, E. Frontoni, **S. Moccia**, and M. C. Fiorentino. "FedStenoNet: tackling domain shift in x-ray coronary angiography through a personalized federated detection framework". In: *Computers in Biology and Medicine* 198 (2025), p. 111172.

[6] S. Solbiati, M. C. Fiorentino, R. Bendandi, **S. Moccia**, and E. G. Caiani. "AI-based prediction of VO2 max from 24-h Holter ECG recording". In: *npj Microgravity* (2025).

[7] C. Verardo, A. Giannotti, C. Albert, G. Faoro, C. Schiff, J. Bourgeot, G. Lazzarini, A. Pirone, V. Miragliotta, **S. Moccia**, et al. "Building hybrid models of neuromodulation from automatic segmentation of peripheral nerve histological sections". In: *Computers in Biology and Medicine* 197 (2025), p. 111072.

[8] M. L. Tommolini, M. C. Cufaro, S. Valentinuzzi, I. Cicalini, M. Zucchelli, A. Frisco, S. Simonetti, M. Perrone Donnorso, **S. Moccia**, I. Bucci, et al. "Propionyl Carnitine Metabolic Profile: Optimizing the Newborn Screening Strategy Through Customized Cut-Offs". In: *Metabolites* 15.5 (2025), p. 308.

[9] A. Cacciatore, D. Berardini, V. Scaraggi, A. Mancini, **S. Moccia**, and L. Migliorelli. "Online Knowledge Distillation and Deep Supervision in HRNet: Green AI for Preterm Infants' Pose Estimation". In: *ACM Transactions on Computing for Healthcare* (2025).

[10] M. Testi, M. C. Fiorentino, M. Ballabio, G. Visani, M. Ciccozzi, E. Frontoni, **S. Moccia**, and G. Vessio. "FetalMLOps: operationalizing machine learning models for standard fetal ultrasound plane classification". In: *Medical & Biological Engineering & Computing* (2025), pp. 1–16.

[11] C. Correia, A. Bandini, S. Micera, and **S. Moccia**. "EMG-based body-machine interface for targeted trunk muscle activation". In: *Informatics in Medicine Unlocked* (2025), p. 101641.

[12] M. C. Fiorentino, G. Migliorelli, F. P. Villani, E. Frontoni, and **S. Moccia**. "Contrastive prototype federated learning against noisy labels in fetal standard plane detection". In: *International Journal of Computer Assisted Radiology and Surgery* (2025), pp. 1–9.

[13] V. Mainardi, M. Dal Canto, T. Melillo, N. Lorenzini, G. Bagnoni, **S. Moccia**, and G. Ciuti. "A Thermal-Imaging System and Machine-Learning Classification Algorithm for Skin Cancer Screening". In: *IEEE Transactions on Medical Robotics and Bionics* (2025).

[14] S. Bano, **S. Moccia**, and A. Mukhopadhyay. "IJCARS: IPCAI 2025 special issue—16th international conference on information processing in computer-assisted interventions 2025". In: *International Journal of Computer Assisted Radiology and Surgery* (2025), pp. 1–2.

[15] F. Righetti, G. Rubiu, M. Penso, **S. Moccia**, M. L. Carerj, M. Pepi, G. Pontone, and E. G. Caiani. "Deep learning approaches for the detection of scar presence from cine cardiac magnetic resonance adding derived parametric images". In: *Medical & Biological Engineering & Computing* 63.1 (2025), pp. 59–73.

[16] S. Romeni, D. De Luca, L. Pierantoni, L. Toni, G. Marino, **S. Moccia**, and S. Micera. "A computational model to design wide field-of-view optic nerve neuroprostheses". In: *iScience* 27.12 (2024).

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INTERNATIONAL CONFERENCE PROCEEDINGS

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BOOK CHAPTERS

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Tutto quanto dichiarato corrisponde a verita' ai sensi degli articoli 46 e 47 del D.P.R. n. 445/2000