# Virginia Tardini

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#### **EDUCATION**

PhD Mechanics and Advanced Engineering Sciences Nov 2023 - ongoing University of Bologna Bologna, Italy Master of Engineering | Civil Engineering Sept 2021 - Jul 2023 University of Bologna Bologna, Italy • Grade: 103/110 Bachelor of Engineering | Building Engineering Sept 2018 - Dec 2021 Bologna, Italy

University of Bologna

• Grade: 107/110

WORK EXPERIENCE

# Visiting Scholar at University of Illinois at Urbana-Champaign

Jan 2025 - Jun 2025

Acoustic measurements and subjective test in primary school classrooms

Illinois, United States

- Technical skills: Technical and organizational management of acoustic measurement campaigns (ISO 3382) and extraction of room criteria. Design and administration of intelligibility tests (WIPI and TROG-2) in classrooms.
- E-Skills: Autocad, Photoshop, Audacity (Aurora), RStudio, Excel.

#### Participation in acoustic design of an innovative classroom (Piscopia Corner) in Milan

2024

Acoustic design, simulation and testing of passive acoustic treatments, in collaboration with DIN (Unibo)

Milan, Italy

- Technical skills: Technical and organizational management of acoustic measurement campaigns (ISO 3382) and extraction of room criteria. Design, simulation, and test of acoustic treatments in classrooms.
- E-Skills: Autocad, SketchUp, Odeon Room Acoustics, Dirac, dBTrait.

#### Collaboration on acoustic design of Casa della Salute, Soliera, Modena

2023

Design of passive acoustic treatments and site noise management, in collaboration with DIN (Unibo)

Bologna, Italy

- **Technical skills**: Design and simulation of acoustic treatments in enclosed spaces.
- E-Skills: Autocad, SketchUp, Odeon Room Acoustics.

#### Collaboration on the project to improve the acoustic comfort of elementary school classrooms

2023

Improvement through numerical simulations of acoustic comfort inside classrooms, in collaboration with DIN (Unibo). Bologna, Italy

- **Technical skills**: Design and simulation of acoustic treatments in enclosed spaces.
- E-Skills: Autocad, SketchUp, Odeon Room Acoustics.

#### Participation in the acoustic design of offices and meeting rooms for the PwC headquarters

2022

Acoustic measurements, design, and simulations of acoustic treatments. Collaboration with DIN (Unibo).

Bologna, Italy

- Technical skills: Technical and organizational management of acoustic measurement campaigns (ISO 3382) and extraction of room criteria. Design, simulation, and test of acoustic treatments in open-plan offices.
- E-Skills: Autocad, SketchUp, Odeon Room Acoustics, Dirac.

#### Participation in acoustic design of university classrooms, University of Udine

2022

Acoustic design and simulation of passive acoustic treatments, in collaboration with DIN (Unibo).

Bologna, Italy

- Technical skills: Design, simulation, and test of acoustic treatments in lecture halls.
- E-Skills: Autocad, SketchUp, Odeon Room Acoustics.

# **Internship** Department of Infrastructure and Mobility

Oct 2020 - Jan 2021

Municipality of Rimini

Rimini, Italy

#### **Peer-Reviewed Journal Publications**

- 1. **Virginia Tardini**, Giulia Fratoni, and Dario D'Orazio. Survey of national target values on classroom acoustics. *Building and Environment*, page 113299, 2025
- 2. Giulia Fratoni, Domenico De Salvio, **Virginia Tardini**, Massimo Garai, Paolo Valdiserri, Cesare Biserni, and Dario D'Orazio. Student Activity in Suboptimal Thermal and Acoustic Conditions: An In-Field Study in Active Classrooms. *Applied Sciences*, 15(6), 2025
- 3. Dario D'Orazio, Giulia Fratoni, and **Virginia Tardini**. The Italian standard on classroom acoustics UNI 11532-2: 2020 explained through case studies. *Applied Acoustics*, 231:110498, 2025
- 4. **Virginia Tardini**. Normativa acustica ISO 22955: 2021 e protocollo volontario WELL per gli uffici open plan: verifica dei criteri di progettazione acustica. *Rivista italiana di acustica:* 1, 2024, pages 61–70, 2024

#### **Proceedings at International Conferences**

1. **Tardini Virginia**, Giulia Fratoni, Alessia Nora, Patrizia Malatesta, Roberta Fiordi, Luca Cappellini, Matteo Tarantino, and Dario D'Orazio. Acoustic design of an innovative classroom: the Piscopia Corner in Milan. In *INTER-NOISE and NOISE-CON Congress and Conference Proceedings*, volume 270, pages 7456–7465. Institute of Noise Control Engineering, 2024

#### PRESENTATIONS AT NATIONAL AND INTERNATIONAL CONFERENCES

- 1. **Virginia Tardini**, Giulia Fratoni, and Dario D'Orazio. National standards on classroom acoustics: Key descriptors and global perspectives. *The Journal of the Acoustical Society of America*, 157(4\_Supplement):A46–A46, 2025
- Tardini Virginia, Giulia Fratoni, Alessia Nora, Patrizia Malatesta, Roberta Fiordi, Luca Cappellini, Matteo Tarantino, and Dario D'Orazio. Acoustic design of an innovative classroom: the Piscopia Corner in Milan. In INTER-NOISE and NOISE-CON Congress and Conference Proceedings, volume 270, pages 7456–7465. Institute of Noise Control Engineering, 2024
- 3. **Virginia Tardini**. L'aula del futuro: Piscopia Corner in Mind. In 50° Convegno Nazionale AIA, May 2024. Taormina, 29-31 Maggio 2024
- 4. **Virginia Tardini**, Giulia Fratoni, and Dario D'Orazio. Summary of National Standards on classroom acoustics: The data collection. *The Journal of the Acoustical Society of America*, 155(3\_Supplement):A211–A212, 2024
- 5. **Virginia Tardini**. Il ruolo dei controsoffitti nella verifica delle features WELL e i requisiti ISO 22955:2021. In 49° *Convegno Nazionale AIA*, June 2023. Ferrara, 7-9 giugno 2023

#### **INVITED TALKS**

- 1. **Virginia Tardini**, Giulia Fratoni, and Dario D'Orazio. National standards on classroom acoustics: Key descriptors and global perspectives. *The Journal of the Acoustical Society of America*, 157(4\_Supplement):A46–A46, 2025
- 2. Guest Speaker "Speech intelligibility", SHS 301: General Speech Science, University of Illinois, April 22, Urbana-Champaign, 2025.
- 3. Guest Speaker "Room Acoustics in theaters: between history and acoustic design", MUS 209: Acoustics for Musicians, University of Illinois, Urbana-Champaign, April 10, 2025.
- 4. **Virginia Tardini**, Giulia Fratoni, and Dario D'Orazio. Summary of National Standards on classroom acoustics: The data collection. *The Journal of the Acoustical Society of America*, 155(3\_Supplement):A211–A212, 2024

# PARTICIPATION TO SCHOOLS

- Summer School, Sound Perception Through the Senses and Biological Sensors, Lari (PI), Italy, 18-19 July 2025.
- Autumn School Series in Acoustics (ASSA), Building and Room Acoustics, Eindhoven University of Technology (TU/e), Eindhoven, 4-8 November 2024.
- Summer School, Fundamentals in Acoustics, Forum Acusticum, Turin, 8-10 September 2023.

# PARTICIPATION TO HACKATHONS

- Illinois Statistics Datathon, University of Illinois, Urbana-Champaign, 28-30 March 2025.
- European Hackathon 2023, Gustave Eiffel University, Paris, 25-27 March 2023.

#### TEACHING AND MENTORING

**Tutor**University of Bologna
Bologna, Italy

\* Subject: Vehicle Acoustics M (Spring 2024). Teacher: Dr. Dario D'Orazio

Mentor
University of Bologna

\* Matteo Spinelli, Master's student.

Skills

Programming: Python (NumPy, SciPy, Matplotlib, SumoPy), R

**Document Creation**: LATEX, Microsoft Office Suite

Software: MATLAB, AutoCAD, Photoshop, SketchUp, Lumion, Oden Room Acoustics, dBTrait, Audacity,

Dirac

#### HONORS AND AWARDS

#### **ICA Young Scientist Conference Attendance Grant**

May 2025

Nov 2023 - Present

Bologna, Italy

International Commission for Acoustics (ICA)

#### **I-INCE Young Professional Congress Attendance Grants**

International Institute of Noise Control Engineering (I-INCE)

Aug 2024

#### PROFESSIONAL SOCIETIES

• Member of Italian Association of Acoustics (AIA)