

Louena Shtrepi

18.10.1986

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DENERG, Politecnico di Torino

C.so Duca degli Abruzzi 24

10129, Torino, Italy

louena.shtrepi@polito.it

**Current position
(since 07.2024)**

Associate Professor – Building Physics (Applied Acoustics)

Department of Energy, **Politecnico di Torino**, Corso Duca degli Abruzzi, 24 - 10129
Torino, ITALY

Education and training

2012-2015

PhD in Metrology: Measuring Science and Technique

Topic: Measurement traceability of sound scattering coefficient of diffusive surfaces used in room acoustics and virtual acoustical environments

Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY

Tutors: prof. Arianna Astolfi, Giulio Barbato, Monika Rychtáriková

04.2013-07.2013

Visiting researcher

Research on scattering coefficient and acoustic diffusion measurements.

K.U. Leuven, Acoustics and Thermal Physics Section, Celestijnenlaan 200d – box 2416, 3001 Leuven, BELGIUM

Tutor: prof. Monika Rychtáriková

2008-2011

MSc at the First School of Architecture, master Construction

Politecnico di Milano, Piazza Leonardo da Vinci, 32 - 20133 Milano, ITALY

Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY

Double degree for Master of science (110/110 cum Laude)

Tutors: prof. Arianna Astolfi, Monika Rychtáriková, and Renzo Vitale

02.2011-06.2011

Visiting student

Master thesis research on scattering coefficient implementation by different algorithms in different Geometric Acoustic based software.

Aachen University, Institute of Technical Acoustics, 52056 Aachen, Germany

Tutor: Michael Vorländer Monika Rychtáriková, and Renzo Vitale

2008-2010

Graduated at the ASP: Alta Scuola Politecnica Milan-Turin, two years multidisciplinary course.

Politecnico di Milano, Piazza Leonardo da Vinci, 32 - 20133 Milano, ITALY

Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY

ASP diploma

2005-2008

BSc at the First School of Architecture, bachelor Architecture Sciences.

Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino,

ITALY

Bachelor of science degree (110/110 cum Laude)

Tutors: prof. Arianna Astolfi

Work experience

- 07.2020-07.2024** **Assistant Professor in Applied Physics - RTDB**
Department of Energy, **Politecnico di Torino**, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY
- * Maternity leave September 2020-February 2021**
- 03.2018-07.2020** **Assistant Professor in Building Physics - RTDA**
Department of Energy, **Politecnico di Torino**, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY
- 02.2017-03.2018** Post-doc research fellow **"ACOUSTICS 4 Healthy Environments And Living Throughout life"**
Department of Energy, **Politecnico di Torino**, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY
- 12.2014- 2022** Co-founder of an innovative **start-up** in the medical sector of voice care devices
PR.O. Voice s.r.l, C.so Castelfidardo 30/a 10129 Torino
- 07.2013** Project for the improvement of the acoustic quality of the offices of Ufficio Pio.
Ufficio Pio, Compagnia di San Paolo, Corso Ferrucci, 3-10138 Torino, ITALY
Architect and acoustic consultant
- 02.2012-03.2012** Acoustic consultant for the design contest "A New Auditorium in Acilia-Dragona, Rome", (Honorable Mention)
www.europaconcorsi.com/projects/211358-Nuovo-Auditorium-di-Acilia-Dragona
Federico Bistolfi, Fanstudio, Architecture Atelier, Vicolo Moroni 30, 00153 Roma, ITALY
External consultant
- 09.2011-01.2012** Assisting in the designing process of different type of projects like construction of new buildings and restoration of existing ones, Cad operator for drawings in the appropriate scales, building site visits and inspections.
Studio Durbiano Reinerio Architetti, Via Baretti, 46 - 10125 Torino, ITALY
Architecture and Design Atelier, External consultant.
- 09.2011** RND: Implementation of a new acoustic software: Acusoftware Fresia Alluminio S.p.a.
www.fresialluminio.it Research in acoustics and application of acoustical standards requirements on windows acoustic insulation.
ONLECO s.r.l. via Pigafetta, 3 Torino, ITALY,
Research and consultancy company in acoustics, sustainable buildings, energy, air conditioning and lighting.
- 2011** Design students Competitions, Vienna House of Music. Project: Catch the Moon.
Projects chosen as finalists by ArchMedium jury.
ArchMedium, students Competitions <http://en.archmedium.com/>
http://en.archmedium.com/Concorsi/End_VHOM/Results.php.
- 09.2010-12.2010** Assisting in the designing process of different type of projects like construction of new buildings and restoration of existing ones, Cad operator for drawings in the appropriate scales, building site visits and inspections.
Studio Durbiano Reinerio Architetti, Via Baretti, 46 - 10125 Torino, ITALY

Teaching experience

Member of the Teaching and Language Lab at Politecnico di Torino. I serve as a mentor for M2P project which involves peer-to-peer mentorship between colleagues of different disciplines. I have received training through specific course of "Learning to Teach"

- 06.2024-PRESENT** **Principal Professor Phd course**
"Human-centric methodologies for the environmental quality of living" Doctorate Research in Design E Tecnologia. Persone, Ambiente, Sistemi - Torino
Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY
- 05.2022- 02.2024** **Principal Tutor**
Alta Scuola Politecnica Multidisciplinary project "MetaVENT": Metamaterial Applications in Aeroacoustics
Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY
Politecnico di Milano, Piazza Leonardo da Vinci, 32 - 20133 Milano, ITALY
- 05.2022- 02.2024** **Principal Tutor**
Alta Scuola Politecnica Multidisciplinary project "MetaMAPP II – Reloaded": Metamaterial Applications
Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY
Politecnico di Milano, Piazza Leonardo da Vinci, 32 - 20133 Milano, ITALY
- 07.2024- PRESENT** **Reference professor**
Course *Sound Engineering* for the Master program in *Cinema and Media Engineering*.
Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY
- 07.2024- PRESENT** **Reference professor**
Course Adaptive Public Spaces – Building Physics in the Master program in *Architecture for Sustainability*.
Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY
- 02.2021- PRESENT** **Adjunct professor**
Course *Healthy and Connected Built Environment*, Master program in Architecture for Sustainability
Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY
- 02.2016- PRESENT** **Reference professor**
Course *Exhibit design*, Bachelor-level in Design And Visual Communication.
Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY
- 01.2015-05.2024** **Assistant Lecturer**
Course *Sound Engineering*, supervised by prof. Marco Masoero for the Master program in *Cinema and Media Engineering*.
Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY
- 10.2012- PRESENT** **Assistant Lecturer**
Course *Building Physics* supervised by prof. Arianna Astolfi.
Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY
- 10.2012- PRESENT** **Assistant Lecturer**
Course *Acoustics and lighting in building design*, supervised by prof. Arianna Astolfi and prof. Anna Pellegrino.
Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY
- 02.2014** **Lecturer**
Building Acoustics lectures in the course *Green Building-Implants*
Forte Chance, Via Avellino 6, 10144, Torino
- 01.2012** **Assistant Lecturer**
Courses *Building Physics* and *Environment controlling techniques*, supervised by prof. Chiara Aghemo.
Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY
- 02.2010-06.2010** **Part-time collaboration**
Assisting students in their designing work in *Design workshop*, supervised by prof. Luca Reinerio.
Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY

Honours and awards

Keynote Speaker

- 2025** Invited Keynote speaker for the 11th Congress of the Alps-Adria Acoustics Association (AAAA 2025), September 2025, 18-19, Varaždin, Croatia.
<https://www.alpsadriaacoustics.eu/#keynote>
Topic "Challenges in Architectural Acoustics for Sustainability"
- 2024** Invited Keynote speaker for the ACOUSTICS 2024 High Tatras, June 12-14, 2024 / Štrbské Pleso, Vysoké Tatry, Slovakia. <https://2024.acoustics.sk/keynote-lecture/>
Topic " From real to virtual: Acoustic materials in Architectural Acoustics"
- 2021** Invited Lecturer for the international webinar series "Introduction to Acoustic Engineering", University of Campinas, (Brazil).
Topic "Deaf Architects and blind acousticians: the importance of perceptual listening tests."

Thesis

- 2015** **Newman Medal 2015**
PhD thesis honor for excellence in the study of architectural acoustics.
Newman Student Award Fund and The Acoustical Society of America (ASA), <http://www.newmanfund.org/>
- 2012** **Premio Amedeo Giacomini 2012**
Best master degree thesis on acoustics, 2012
Associazione Italiana di Acustica, www.associazioneitalianadiacustica.it
- 2011** **Honors Theses 2011**
Acknowledgment based on the thesis presentation at the First School of Architecture: Master of Science in Architecture (Construction), July 2011.
Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY,
<http://www.architesi.polito.it>

Research

- 2018** **Premio Italo Barducci 2018**
Young Scientist Conference Attendance Grants based on the paper presentation for AIA 2018
Associazione Italiana di Acustica, www.associazioneitalianadiacustica.it
- 2017** **ASA Best Papers Award 2017**
The New Orleans Best Student Paper Award in Architectural Acoustics (ASA 2017)
The Acoustical Society of America (ASA) <https://acousticalsociety.org>
- 2013** **ISRA Best Papers Award 2013**
Best Papers Award at The International Symposium in Room Acoustics (ISRA 2013)
The Acoustical Society of America (ASA), the International Commission on Acoustics (ICA), and ARUP, <http://www.caa-aca.ca>
- 2013** **Premio Italo Barducci 2013**
Young Scientist Conference Attendance Grants based on the paper presentation for AIA-DAGA 2013
Associazione Italiana di Acustica, www.associazioneitalianadiacustica.it
- 2012** **EEA Best Paper and presentation Award 2012**
Excellent presentation of the paper at Euronoise 2012, sponsored by Head Genuit Foundation
European Acoustics Association, www.eaa-fenestra.org
- 2012** **Young Scientist Grant for Inter-Noise 2012**
Young Scientist Conference Attendance Grants based on the paper presentation for INTERNOISE 2012

**Other
2009**

Premio Optime 2008/2009

Acknowledgment for being one of the best graduated students of the academic year 2008/2009.

Unione Industriale Torino, Via Manfredo Fanti,17 - 10128 Torino, ITALY

Università degli Studi di Torino, Via Verdi, 8 - 10124 Torino, ITALY

Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY

Laboratory experience

- 2012-PRESENT** Management of the construction and development of the laboratory for acoustic scattering measurements (1:1 and 1:5 scale reverberation room) at Politecnico di Torino. The facility has been successfully used also for the sound absorption characterization of different building materials.
Development of the material characterization unit within the Applied Acoustic Laboratory.

Research Projects

- 2021-PRESENT** Iclimabuilt - Functional and advanced insulating and energy harvesting/storage materials across climate adaptive building envelopes (2021-2025) – H2020 (Participant)
- 2023-PRESENT** LA.B. 23-24 – LABORATORIO BOSCO 2023-2024 – Filiera locale, sostenibilità ed economia circolare – Forest LABORATORY 2023-2024 – Local supply chain, sustainability and circular economy (Participant)
- 2023-2024** SUPERIMPOSITION - an artistic project by Polisonum that investigates the theme of listening and sonic control. (WP Coordinator)
- 2019-2024** POWERSKIN – Plus - Highly advanced modular integration of insulation, energising and storage systems for non-residential buildings (2019-2023) - H2020 (Participant)
- 2021-2022** SILENCE.- acouStlc metamaterialL for MRI noiSE caNCEllation, (2021-2022) - H2020 - Excellent Science – FET (WP Coordinator)
- 2017-2021** Optimization of sound absorption and sound scattering through the use of concrete material - CEMEX (Coordinator)
- 2017-2022** Performance based design as an optimization tool in the early stages of the design process of building facades. (Coordinator)
- 2017-2021** Assessment of safety perception correlation to soundscape through social media and smartphone applications. Coordinator: Prof. Arianna Astolfi
- 2016-2022** Anthropic noise control through real time feedback devices. Coordinator: Prof. Arianna Astolfi
- 2012-PRESENT** Sound scattering surfaces (optimization of sound diffusers position and extension in performance spaces, classrooms, listening rooms etc). Coordinator: Prof. Arianna Astolfi
- 2016-2017** Optimization of sound insulation through innovative concrete walls produced by CEMEX (<http://www.cemex.com/>). Coordinator: Prof. Arianna Astolfi
- 2015-2017** Noise and vibration risk assessment in industrial working environments (ILVA, Taranto). Coordinator: Prof. Marco Masoero
- 2015-2017** Noise and vibration risk assessment in audiovisual working environments (RAI, Torino). Coordinator: Prof. Marco Masoero

2012-2014

Designing and building innovative systems for dry mounting façades with high energetic and acoustic performance in order to lower the building time construction, costs, maintenance and management (Project INTESA). Coordinator: Prof. Arianna Astolfi

Commissions of Trust

Scientific committee

Member of the Research Board of HELA - The Healthy Ears, Limited Annoyance (HELA) Initiative was proposed in AES Technical Document AESTD1007.1.20-05 "Understanding and managing sound exposure and noise pollution at outdoor events".

https://www.aes.org/technical/documents/AESTD1007_1_20_05.pdf

Member of the scientific committee of the ISRA International Symposium on Room Acoustics 2025 <https://ismra2025.org/>

Member of the scientific committee of the *11th Congress of the Alps-Adria Acoustics Association (AAAA 2025)* <https://www.alpsadriaacoustics.eu/#page-top>

Chair of the EAA Summer School at the conference Forum Acusticum 2023 <https://www.fa2023.org/eea-summer-school/>

Member of the scientific committee of the conference Immersive 3D Audio: From Architecture to Automotive since 2023 (I3DA 2023 and I3DA 2025)

<https://www.i3da2025.org/>

Member of the scientific committee of the conference Forum Acusticum 2023

<https://www.fa2023.org/>

Member of the scientific committee of the Sound and Music Computing Conference from 2020 (17th, 18th and 19th editions) <https://smc2020torino.it/uk/>

Member of the scientific committee of the 2nd Symposium on The Acoustics of Ancient Theatres http://www.acustica-iaa.it/wp-content/uploads/2020/01/Verona_2_4-09-2020_Leaflet_Ancient-Acoustics-Symposium.pdf

Member of the scientific committee of the ISRA International Symposium on Room Acoustics 2019 <https://www.isra2019.eu/committees>

Conferences

Reviewer for the conference **IBPC 2024**, <https://www.ibpc2024.org/>

Reviewer for the conference **Immersive 3D Audio: From Architecture to Automotive I3DA 2023** <https://www.i3da2023.org/>

Reviewer for the conference **Forum Acusticum 2023** <https://www.fa2023.org/>

Reviewer for the **ICA 2022** 24th International Congress on Acoustics, <https://ica2022korea.org/>

Reviewer for the conference the **Sound and Music Computing Conference from 2020, 2021, 2022** <https://smc2020torino.it/uk/>

Reviewer for the **Building Simulation Conference (BS 2019)** <http://buildingsimulation2019.org/>

Reviewer for the **ISRA 2019 (International symposium on room acoustics)**
<https://www.isra2019.eu/>

Reviewer for the **6th International Building Physics Conference (IBPC 2015)**
<http://www.ibpc2015.org>

Journals Reviewer for more than 22 international journals (Top peer reviewer)
<https://publons.com/author/1228486/louena-shtrepi#profile>

Deputy Editorial Manager for RIA (**Rivista Italiana di Acustica**) (2022-present)

Associate Editor for **BUILDING ACOUSTICS** (2019-present)

Guest editor for **FRONTIERS IN BUILT ENVIRONMENT** (2020-present) and **Acoustics** (2019-present)

Membership **AIA (associazione Italiana di Acustica)**
<https://acustica-aia.it/en/membership/>

*Full Member and member of the elected AIA Board

ASA (The Acoustical Society of America) Member from 2017
<https://acousticalsociety.org/>

EAA (European Acoustics Association) Member from 2012
<https://www.euracoustics.org/>

Workshops organization

02. 2020 (each year) “**Technological and structural design, material optimization, geometric exploration, digital manufacturing**”, invited to lecture and be part of the scientific committee in this international conference and workshop organized with **Università di Napoli Federico II and Ecole Nationale Supérieure d'Architecture de Paris-Belleville (France)**.

08. 2020 (each year) “**Villa Pennisi in Musica**”, invited to contribute and lecture in the Architecture/Acoustic workshop Arch Lab in collaborazione con Università Federico II Napoli e Gridshell.
<https://www.vpmusica.com/arch-lab/>

05.2022 Organization of the workshop “**The soundscape approach for supportive and healthy built environments - techniques for field recordings, data collection, and design strategies**” invited lecturer prof. Francesco Aletta, University College di Londra. (Politecnico di Torino)

03. 2019 “**Post-war buildings reconstruction: the importance of the acoustic comfort**”, invited to organize the workshop by **Prof. Dr. Ergun Eraslan** (director of the Institute of Applied and Natural science), **Ankara Yildirim Beyazit University, (Turkey)**.
PROGRAM: **ERASMUS Staff Mobility for Teaching**

05.2015 “**Laboratory of design, construction and characterization of acoustical and electroacoustical music instruments**”, invited lecturer Jean-François Laporte.
Organizers: Marco Masoero, Louena Shtrepi, Andrea Prato (Politecnico di Torino), Stefano Bassanese (Scuola di Musica Elettronica, Conservatorio di Torino)

Other

Organization of exhibitions and artistic performances

Organization and scientific curation of the exhibit "Food Sound" for the MUSE- Museo delle Scienze, Trento <https://www.muse.it/>

Collaboration with Polincontri Classica and Conservatorio Statale di musica G. Verdi (Torino)
#1. "Tudor Rainforest IV – Installazione concertante", (30/01/2017, Stefano Bassanese, SMET)
#2. Jean-Francois Laporte (11/06/2015, concert in Aula Magna (Politecnico di Torino),

Collaboration with artists:

#3. Amos Cappuccio, scientific supervision of the use of directive sound sources "We Are in Excellent Physical and Emotional Health" for the exhibition "And cut off his right ear" curated by RepertorioZero and Base. (16/03/2019)

#4. Alfredo Pirri, collaboration through measurements of the work "Motore" (10/2019-02/2020, Tucci Russo Studio di Arte Contemporanea, Torre Pellice).

Supervisor

Supervisor of more than 44 master and 4 bachelor theses (Politecnico di Torino, Torino, Italy)
Supervisor of 1 Master thesis at Università degli Studi di Napoli Federico II (Napoli, Italy)
Supervisor of 1 Master thesis at Technical University of Denmark - DTU (Copenhagen, Danimarca)
Supervisor of 3 PhD thesis (Politecnico di Torino, Torino, Italy)

Evaluator

Member of 3 PhD evaluating committees (Politecnico di Milano (Italy); ETH Zurich (Switzerland); Università degli Studi di Perugia (Italy)) and 2 MSC evaluating (KU Leuven (Belgium).

Reviewer for the Dutch Research Council (NOW)

Institutional tasks

Member of the coordinating committee of the center Polito for Social (Centro Polito per il Sociale). Rappresentative of the Department of Energy (DENERG, Politecnico di Torino) <https://www.polito.it/impatto-sociale/polito-per-il-sociale>

Member of the Board of the Teaching and Language Lab at Politecnico di Torino. <https://www.polito.it/en/education/teaching-lab>

Papers and publications

Complete research papers on
IRIS

https://iris.polito.it/cris/rp/rp02459?open=all&sort_byall=2&orderall=DESC&rpall=20&etalall=-1&startall=0#.Xiq_N2hKhPY

Complete research papers on
Research gate

https://www.researchgate.net/profile/Louena_Shtrepi

Complete research on
Google Scholar

<https://scholar.google.it/citations?user=2e4nJY4AAAAJ&hl=it>

DICHIARAZIONE SOSTITUTIVA DI CERTIFICAZIONE (art. 46 e 47 D.P.R. 445/2000)

La sottoscritta Louena Shtrepi, consapevole che le dichiarazioni false comportano l'applicazione delle sanzioni penali previste dall'art. 76 del D.P.R. 445/2000, dichiara che le informazioni riportate nel CV, corrispondono a verità.

Data 13/10/2024

Firma





REPUBBLICA ITALIANA
MINISTERO DELL'INTERNO

CA92106QK



CARTA DI IDENTITÀ / IDENTITY CARD

COMUNE DI / MUNICIPALITY
TORINO



COGNOME / SURNAME

SHTREPI

NOME / NAME

LOUENA

LUOGO E DATA DI NASCITA

PLACE AND DATE OF BIRTH

BERAT (ALB) 18.10.1986

SESSO

SEX

F

STATURA

HEIGHT

163

CITTADINANZA

NATIONALITY

ITA

EMISSIONE / ISSUING

11.10.2023

SCADENZA / EXPIRY

18.10.2032

FIRMA DEL TITOLARE

HOLDER'S SIGNATURE



564567