Louena Shtrepi

18.10.1986
+39 349 6674317
DENERG, Politecnico di Torino
C.so Duca degli Abruzzi 24
10129, Torino, Italy
louena.shtrepi@polito.it
louena.shtrepi@gmail.com

Current position (since 07.2020)

Assistant Professor in Applied Physics - RTDB
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

03.2018-07.2020 ***Assistant Professor in Applied 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- PRESENT *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
www.provoicesrl.com

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/Concursos/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*
Architecture and Design Office

07.2009 *Assisting in the designing process of different type of acoustic projects.*
ONLECO *s.r.l. via Pigafetta, 3 Torino, ITALY,*

Research and consultancy company in acoustics, sustainable buildings, energy, air conditioning and lighting.

Teaching experience

02.2016- PRESENT **Adjunct professor**
Course *Exhibit design*, Bachelor-level in Design And Visual Communication.
Politecnico di Torino, Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY

01.2015-PRESENT **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 *Technical physics of environment* 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

Personal skills and competences

Mother tongue Albanian

Other languages
High Italian, English
Basic Spanish, German, Flemish

Software I have an excellent knowledge of acoustic prediction software such **as Odeon, Catt-Acoustic, Raven**; acoustic measurement and signal processing software such as **Dirac, CoolEdit, Adobe Audition**.
Other software: **Rhinocerors (Grasshoppe), Autocad 2D and 3D modeling, Adobe Photoshop, Illustrator, InDesign, 3D Studio Max, Sketch Up, Dialux** (lightning calculations), **Ecotect** (lightning, energy and acoustics calculations), **Matlab** (programming).
Statistical analyses software: **Minitab and SPSS**

Other interests Sports, arts, and foreign languages and cultures.

Honours and awards

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
International Institute of Noise Control Engineering, www.i-ince.org

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.

Research Projects

2017-PRESENT Optimization of sound absorption and sound scattering through the use of concrete material. (Coordinator)

2017-PRESENT Performance based design as an optimization tool in the early stages of the design process of building facades. (Coordinator)

2017-PRESENT Assessment of safety perception correlation to soundscape through social media and smartphone applications. Coordinator: Prof. Arianna Astolfi

2016-PRESENT 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 scientific committee of the 17th Sound and Music Computing Conference https://smc2020torino.it/uk/

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

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

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

Journals Reviewer for more than 10 international journals
https://publons.com/author/1228486/louena-shtrepi#profile

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

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

Workshops

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/**

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 Yildırım 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)

Papers and publications

Complete research papers on IRIS **https://iris.polito.it/cris/rp/rp02459?open=all&sort_byall=2&orderall=DESC&rppall=20&etalall=-1&startall=0#.Xiq_N2hKhPY**

Complete research papers on Research gate **https://www.researchgate.net/profile/Louena_Shtrepi**

Torino, 23/02/2022

Louena Shtrepi