

CURRICULUM VITAE



PERSONAL INFORMATION

First name(s) / Surname(s)

MARIA CAIROLI

E-mail

Nationality

Italiana

Mobile

OCCUPATIONAL FIELDS

Professor in charge at Politecnico di Milano, Italy, with research activities in Building Physics and Applied Acoustics

Deputy Technical Director and **Professor** in masters for Acoustics (Scuola Master Fratelli Pesenti, Politecnico di Milano, Italy)

Acoustics and Theatre Consultant (executive Project Director) for Performing Art Spaces (including Opera Houses, Concert Halls and Multipurpose Auditoria with international experience)

Acoustic and Energy Buiding Consultant in buildings (libraries, residential houses, hotels, churches, ...)

COMMUNICATIVE AND DIDACTIC EXPERIENCE

Good communication skills acquired during twenty years of experience teaching at Politecnico di Milano University and in professional training courses. In particular:

- “FUNDAMENTALS OF ROOM ACOUSTICS” (at School of Building Physics and Building Energy System and at School of Industrial and Information Technology Engineering); course language: English, Master of Science level.

- “ACOUSTICS OF LISTENING SPACES” (at School of Building Physics and Building Energy System and at School of Industrial and Information Technology Engineering); course language: English, Master of Science level.

- “ACUSTICA APPLICATA E ILLUMINOTECNICA (APPLIED ACOUSTICS AND LIGHTING)” (at the School of Building Physics and Building Energy System); course language: Italian, Master of Science level.

- “ACOUSTICS IN BUILDINGS (acoustics in building LAB included)” (at School of Architecture and Urban Planning Construction Engineering); course language: English, Bachelor of Science level.

- BUILDING ACOUSTICS AND ENVIRONMENTAL ACOUSTICS (in Masters of I and II level at Scuola Master Fratelli Pesenti, for people with already Master of Science level); course language: Italian

In detail:

2017- up today

Professor in charge (adjunct Professor) teaching FUNDAMENTALS OF ROOM ACOUSTICS

Professor in charge (adjunct Professor) teaching ACOUSTICS OF LISTENING SPACES

2014 -up today

Deputy Technical Director and Professor for the master PROFESSIONAL SPECIALIZATION IN THE DESIGN OF ARCHITECTURAL ACOUSTICS (environmental, building and room acoustics with laboratories activities in semi anechoic room and measurements are included)

Professor in Master of I and II level for BUILDING ACOUSTICS and ENVIRONMENTAL ACOUSTICS (masters in SUSTAINABLE BUILDINGS AND INFRASTRUCTURES)

2018-2020

Professor assistant teaching ACOUSTICS IN BUILDINGS

2012-2019

Professor assistant teaching ACUSTICA APPLICATA E ILLUMINOTECNICA (APPLIED ACOUSTICS AND LIGHTING)

2016-2018

Professor assistant teaching FISICA TECNICA (TECHNICAL PHYSICS)

2004-2005

THESIS SUPERVISOR

Professor in charge teaching FISICA TECNICA AMBIENTALE + IMPIANTI TECNICI (environmental acoustics and building acoustics included).

2009 up today

Gest Professor for short teaching modules/lectures about ROOM ACOUSTICS (specialized for Concert Halls and Opera Houses) and BUILDING ACOUSTICS (specialized in typical building structures and building materials, for new and existing buildings, including environmental aspects) in many buildings' technology courses (in different universities, masters, PHD courses, and specialized courses for engineers).

2020-2021 European Master in Building Information Modelling Thesis

Title: **Bim-Based Energy and Acoustic Analysis Through Cve Tools**

Autor: Mija Sušnik,

Supervisors: TAGLIABUE LAVINIA CHIARA and MARIA CAIROLI

University of Minho (Dept. Civil Engineering), Portugal

2019-2020 Master of Science thesis

Title: **Room Acoustic Design in Pandemic: The case study of a classroom to improve sound quality and safety conditions during Covid-19**

Autor: Francesco Lorenzo

Supervisor: CAIROLI MARIA

Pubblication: Politecnico di Milano

2018 Master Sustainable Buildings and Infrastructures thesis

Title: **La termoacustica dell'edificio.**

Autor: Arch. Marina Congestri

Supervisor: CAIROLI MARIA

2017 Master of Science thesis

Title: **Indoor comfort parameters for educational buildings**

Autor: Carlotta Santachiara,

Supervisor: DE ANGELIS ENRICO

Co-supervisor: CAIROLI MARIA, TAGLIABUE LAVINIA CHIARA

Pubblication: Politecnico di Milano

2015-2016 Master Sustainable Buildings and Infrastructures thesis

Title: **L'acustica del Teatro Petrarca di Arezzo**

Autor: Ing. Andreea Mihaela Maraniello

Supervisor: CAIROLI MARIA

Pubblication: Politecnico di Milano

2014-2015 Master of Science thesis

Title: **La sensibilità e la percezione del suono nei modelli di simulazione della room acoustics.**

Autor: Miniello, Veronica

Supervisors: CAIROLI MARIA, MAZZARELLA LIVIO

Pubblication: Politecnico di Milano

2011-2012 Master of Science thesis

Title: **La valutazione acustica delle forme architettoniche nel teatro all'italiana.**

Autors: Torresin, Simone; Meazza, Lara Eleonora

Supervisors: CAIROLI MARIA; MAZZARELLA LIVIO

Pubblication: Politecnico di Milano

SCIENTIFIC PAPERS

2021

Cairolì M., Merli F. *The Arena of Verona competition: an opportunity to improve a modern variable acoustic response in an ancient space*. Accepted at the International Conference on Immersive and 3D Audio, 8-10 September 2021, Bologna, Italy

Sušnik M., Tagliabue L.C., Cairolì M. *BIM-based energy and acoustic analysis through CVE tools*. Energy Reports, in press

Cairolì M. *Design acustico architettonico di uno spazio a volume variabile: il centro culturale anima – Grottamare (AP)*. In: Atti del 47° Convegno Nazionale dell'Associazione Italiana di Acustica AIA. ISBN: 978-88-88942-61-2, on line, 24-31 May 2021

Cairolì M. *Design acustico architettonico di uno spazio parzializzabile: il caso studio Pio Albergo Trivulzio, Milano*. In: Atti del 47° Convegno Nazionale dell'Associazione Italiana di Acustica AIA. ISBN: 978-88-88942-61-2, on line, 24-31 May 2021

Cairolì M. *Design acustico architettonico di una biblioteca: il caso studio BEIC, Milano*. In: Atti del 47° Convegno Nazionale dell'Associazione Italiana di Acustica AIA. ISBN: 978-88-88942-61-2, on line, 24-31 May 2021

Cairolì M. *Design acustico architettonico di un'aula scolastica durante la pandemia COVID -19*.

In: Atti del 47° Convegno Nazionale dell'Associazione Italiana di Acustica AIA. ISBN: 978-88-88942-61-2, on line, 24-31 May 2021

2020

Cairolì M. *Ancient shapes for modern architectural and acoustic design: large interiors formed by curved surfaces*. APPLIED ACOUSTICS, vol. 170, ISSN: 0003-682X, doi: 10.1016/j.apacoust.2020.107497

Cairolì M. *Identification of a new acoustic sound field trend in modern catholic churches*. APPLIED ACOUSTICS, vol. 168, 107426, ISSN: 0003-682X, doi: 10.1016/j.apacoust.2020.107426

Cairolì M. *The Architectural Acoustic Design for a Circus: the case study of Rigas Cirks*. APPLIED ACOUSTICS, vol. 173, 107726, ISSN: 0003-682X, doi: 10.1016/j.apacoust.2020.107726

Cairolì M. *The architectural acoustic design for a multipurpose auditorium: Le Serre Hall in the Villa Erba Convention Center*. APPLIED ACOUSTICS, vol. 173, 107695, ISSN: 0003-682X, doi: 10.1016/j.apacoust.2020.107695

Cairolì M, Merli F. *From the architectural acoustic design to measurements: the auditorium Arvedi case study*. In: AIP Conference Proceedings 2307, 020036; <https://doi.org/10.1063/5.0032655>

Cairolì M. *Technical architectural details to design a space evocative of Etruscan Tombs characterized by a contemporary acoustic response for multipurpose uses*. In: Forum Acusticum, Dec 2020, Lyon, France. pp.1773-1776, 10.48465/fa.2020.1014. hal-03235301

Cairolì M, Tronchin L. *The architectural and acoustic quality for theatres hosting animals*. In: AIP Conference Proceedings 2307, 020033; <https://doi.org/10.1063/5.0032654>

Fabbri k, Baio G, Marletta L Tronchin L, Gagliano A, Cairolì M, Merli F, Panzera M. *Thermal insulation of existing buildings and interstitial condensation: comparative assessment in different European climate contexts*. In: Proceedings EEEIC 2020. ISBN: 978-1-7281-7455-6

Susnik M., Tagliabue L.C. Cairolì M. *Interoperability between BIM and CVE for energy and acoustic analysis - 4° Southeast European Conference on sustainable development of energy, water and environment system, Sarajevo 2020*

2019

Mazzarella L., Cairolì M. *Architectural Acoustic Design using absorption materials: the case study 'Snooze Panel'*. In: Proceedings of the 23rd International Congress on Acoustics: integrating 4th EAA Euroregio 2019: 9-13 September 2019 in Aachen, Germany. p. 3474-3481, ISBN: 978-3-939296-15-7. doi: 10.18154/rwth-conv-239052

Mazzarella L., Cairolì M. *La progettazione acustico-architettonica nelle chiese contemporanee attraverso un caso studio: la chiesa Massimiliano Kolbe di Bergamo*. In: Atti del 46° Convegno Nazionale dell'Associazione Italiana di Acustica. p. 1-2, AIA. ISBN: 978-88-88942-59-9, Pesaro, 29-31 May 2019

Mazzarella L., Cairolì M. *Optimization of the acoustic response both for orchestra and for a solo instrument, the exquisitely romantic piano of Chopin, in the case study 'Chopin concert hall'*. In: Proceedings of the International Symposium on Room Acoustics ISRA: 15 to 17 September 2019 in Amsterdam, Netherlands doi: 10.18154/rwth-conv-240153

Mazzarella L., Cairolì M. *Riquilificazione acustico-edilizia dell'auditorium "Puccini" a Torre del Lago (LU)*. In: Atti del 46° Convegno Nazionale dell'Associazione Italiana di Acustica. p. 1-2, AIA. ISBN: 978-88-88942-59-9, Pesaro, 29-31 May 2019

Mazzarella L., Cairolì M. *The Church building secularization through its sound in a contemporary case study*. In: Proceedings of the 23rd International Congress on Acoustics: integrating 4th EAA Euroregio 2019 : 9-13 September 2019 in Aachen, Germany. p. 7015-7021, ISBN: 978-3-939296-15-7. doi: 10.18154/rwth-conv-239054

2018

Cairolì M. *Architectural customized design for variable acoustics in a Multipurpose Auditorium* . APPLIED ACOUSTICS, vol. 140, p. 167-177, ISSN: 0003-682X, doi: 10.1016/j.apacoust.2018.05.026

Mazzarella L., Cairolì M. *Petrarca Theatre: A case study to identify the acoustic parameters trends and their sensitivity in a horseshoe shape opera house*. APPLIED ACOUSTICS, vol. 136, p. 61-75, ISSN: 0003-682X, doi: 10.1016/j.apacoust.2018.02.018

Mazzarella L., Cairolì M. *The sensitivity estimation in simulation modeling by changing the "diffuse reflection coefficient" input*. PROCEEDINGS EURONOISE, p. 2055-2060, ISSN: 2226-5147

Cairolì M. *Design acustico del teatro polifunzionale "Roberto De Silva", Rho (Mi)*. In: Associazione Italiana di Acustica. 45° Convegno Nazionale. ISBN: 978-88-88942-56-8, Aosta,

20-22 June 2018

2017

L. Mazzarella, M. Cairoli, A. M. Maraniello, R. Fumagalli. *Censimento Acustico del Teatro Petrarca di Arezzo*. In: 44° Convegno Nazionale AIA – Pavia, 7-9 June 2017. p. 1-2. ISBN: 978-88-88942-54-4

Tagliabue LC, Cairoli M, Ciribini ALC, De Angelis E. *Performance Analysis of Combined Lighting and Acoustic Systems to Enhance Learning Space Quality*. In: Angelo Ciribini Giuseppe Alaimo Pietro Capone Bruno Daniotti Guido Dell'Osso. *Re-shaping the construction industry*. Rimini: Mayli Editore, ISBN: 978-88-916-2486-4, Firenze, 14-15-09-2017

2016

Cairoli M. *The Acoustics of Enclosed Spaces the Secret, Indissoluble Bond between Music and Architecture*. INGENIO, ISSN: 2307-8928

2015

Cairoli M, Moretti E. *Progettazione e condizioni ambientali, il progetto acustico*. In: *Recupero patrimonio edilizio esistente*. Roma, 08-12 June 2015

2013

Cairoli M, Moretti E, Gade AC. *New opera house in Astana: a recent opportunity to use a room acoustic scale model*. THE JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA, vol. 19, p. 2-7, ISSN: 0001-4966, doi: 10.1121/1.4800280

2009

Mazzarella L., Cairoli M. *Calcolo del potere fonoisolante per partizioni edili: modelli semplificati*. RIVISTA ITALIANA DI ACUSTICA, vol. 33, p. 25-34, ISSN: 0393-1110

Cairoli M. *Acustica degli spazi confinati. Un anello nascosto, inscindibile, tra musica e architettura*. In: Scaramuzza Gabriele Meneghetti Ludovico Chiodo Simona Favaro Roberto Vizzardelli Silvia Serra Carlo Petetta Tobia Vallora Marco. (a cura di): Chiodo Simona, *Il suono congelato*. p. 69-78, Milano: Edizioni Unicopli, ISBN: 978-88-400-1387-9, Campus Bovisa - Politecnico di Milano, 06.05.2008

2005

Cairoli M. *Rumore e malessere urbano perché non possiamo scegliere di non ascoltare*. ERGONOMIA, vol. 3, p. 33-37, ISSN: 1123-7651

M. Cairoli, L. Mazzarella, F. Visconti. *Modi propri dell'aria confinata in condotti dal profilo generico*. In: 32° Congresso AIA - Associazione Italiana di Acustica. p. 1-3, ISBN: 8888942092, Ancona, 15 – 17 June 2005

2003

Guazzotti M., Mazzarella L., Cairoli M. *Musical acoustic analysis: The influence of the source's directivity on the parameters which describe closed spaces with an intended purpose: The listening of chamber music and symphonic music*. ACTA ACUSTICA UNITED WITH ACUSTICA, vol. 89, p. S101-S106, ISSN: 1610-1928

2021

Cairoli M., Mazzarella L. "Architectural Acoustics Design of Performing Arts Spaces – principles and applications of the architectural and acoustic design process."

Proposal accepted from Springer (scientific book)

Invited for contributing to "Acoustic Emission - New Perspectives and Paradigms," an Open Access book edited by Dr. Mahmut Reyhanoglu.

2018

Cairoli M, Stefanoni D. "Enrico Moretti e gli spazi del suono Progettazione acustica, scenotecnica e multimediale". vol. 6, BERGAMO: Moretti & Vitali, ISBN: 9788871866178 (cultural book)

SCIENTIFIC AND CULTURAL BOOKS

SCIENTIFIC CONFERENCES

2021

Cairoli M. SPEACKER The Arena of Verona competition: an opportunity to improve a modern variable acoustic response in an ancient space. Accepted to International Conference on Immersive and 3D Audio, 8-10 September 2021, Bologna, Italy

Cairoli M. SPEACKER - Design acustico architettonico di uno spazio a volume variabile: il centro culturale anima - Grottamare (AP). 47° Convegno Nazionale dell'Associazione Italiana di Acustica AIA - on line, 24-31 May 2021

Cairoli M. SPEACKER - Design acustico architettonico di uno spazio parzializzabile: il caso studio Pio Albergo Trivulzio, Milano. 47° Convegno Nazionale dell'Associazione Italiana di Acustica AIA - on line, 24-31 May 2021

Cairoli M. SPEACKER - Design acustico architettonico di una biblioteca: il caso studio BEIC, Milano. 47° Convegno Nazionale dell'Associazione Italiana di Acustica AIA - on line, 24-31 May 2021

Cairoli M. SPEACKER - Design acustico architettonico di un'aula scolastica durante la

pandemia COVID -19. 47° Convegno Nazionale dell'Associazione Italiana di Acustica AIA - on line, 24-31 May 2021

2020

Cairolì M. SPEACKER - Technical architectural details to design a space evocative of Etruscan Tombs characterized by a contemporary acoustic response for multipurpose uses - Forum Acusticum Lione.

Fabbri k., Tronchin L., merli F., Baio G., gagliano A., Panzera M., Marletta L., CAIROLI M. - Thermal insulation of existing building and interstitial condensation: comparative assessment in different European climate contexts - EEEIC 2020 is the 20th annual conference of the International Conference on Environmental and Electrical Engineering

Cairolì M. Tronchin L., -The architectural and acoustic quality for theatres hosting animals - TMREES Conference, Greece

Cairolì M. Merli F., -From the architectural acoustic design to measurements: the auditorium Arvedi case study - TMREES Conference, Greece

Susnik M., Tagliabue L.C. Cairolì M. - Interoperability between BIM and CVE for energy and acoustic analysis - 4° Southeast European Conference on sustainable development of energy, water and environment system, Sarajevo 2020

2019

Mazzarella L., Cairolì M. SPEACKER - La Progettazione Acusticoarchitettonica nelle Chiese Contemporanee attraverso un Caso Studio: La Chiesa Massimiliano Kolbe Di Bergamo. In: Associazione Italiana di Acustica. 46° Convegno Nazionale, Pesaro 29-31 May 2019

Mazzarella L., Cairolì M. SPEACKER - Architectural Acoustic Design using absorption materials: the case study 'Snooze Panel'. International Congress on Acoustics: integrating 4th EAA Euroregion

Mazzarella L., Cairolì M. SPEACKER - Optimization of acoustic response both for orchestra and for a solo instrument, the exquisitely romantic piano of Chopin, in the case study "Chopin concert hall", International Symposium on Room Acoustics, Amsterdam

2018

Mazzarella L., Cairolì M. SPEACKER - The sensitivity estimation in simulation modeling by changing the "diffused reflection coefficient" input. In: Euronoise 2018 Conference, Creta
Cairolì M. SPEACKER - Design acustico del teatro polifunzionale "ROBERTO DE SILVA", RHO (Mi). In: Associazione Italiana di Acustica. 45° Convegno Nazionale. Aosta, 20-22 June 2018

2017

Mazzarella L., Cairolì M. SPEACKER - censimento acustico del teatro Petrarca di Arezzo. In: Associazione Italiana di Acustica. Pavia, 7-9 June 2017

Tagliabue Lc, Cairolì M, Ciribini Alc, De Angelis E. Performance Analysis of Combined Lighting and Acoustic Systems to Enhance Learning Space Quality. Convegno: Re-shaping the construction industry. Firenze, Dal 14-09-2017 al 15-09-2017.

2015

Moretti E, Cairolì M. SPEACKER - Progettazione e condizioni ambientali, il progetto acustico, Convegno "Recupero patrimonio edilizio esistente" Casa dell'Architettura Piazza Manfredo Fanti 47 - Roma

2013

Moretti E, Gade Ac, Cairolì M. SPEACKER - New opera house in Astana: a recent opportunity to use a room acoustic scale model. In: ICA 2013 Montreal. Acoustical Society of America, Montreal, 2-7 June

Cairolì M. SPEACKER - lo spazio acustico in architettura. Ordine degli Ingegneri di Como.

2010

Cairolì M SPEACKER - Incontro di approfondimento sul tema: l'acustica in edilizia, ordine degli architetti di Como

2008

Cairolì M. SPEACKER - Acustica degli spazi confinati. Un anello nascosto, inscindibile, tra musica e architettura. A cura di: Chiodo Simona, Il suono congelato. Campus Bovisa - Politecnico di Milano

2005

Mazzarella L., Visconti F., Cairolì M. SPEACKER - Modi propri dell'aria confinata in condotti dal profilo generico. In: 32° Congresso AIA - Associazione Italiana di Acustica. Ancona, 15 - 17 June 2005

2003

Mazzarella L., Guazzotti M., Cairolì M. SPEACKER - Musical acoustic analysis: the influence of the source's directivity. In: 5th European Conference on Noise Control EURONOISE 2003.

Napoli, 19-21 May

AWARDS

EDITORIAL AND CULTURAL ACTIVITIES

RESEARCH ACTIVITIES

PROFESSIONAL EXPERIENCE

ARCHITECTURAL DESIGNER FOR PERFORMING ART SPACES



2014

Premio Codega

SPECIAL MENTION for the lighting project of Teatro dell'Opera di Firenze

2009

"Premio Sacerdote" by Italian Association of Acoustics The award is for the PHD thesis "SIMPLIFIED MODELS TO ESTIMATE THE SOUND TRANSMISSION LOSS IN BUILDING PARTITIONS"

2019 - up today

Reviewer for APPLIED ACOUSTICS Journal, Elsevier

Reference Professor for Amplifon Company www.amplifon.com in the awareness campaign "listen responsibly" ("ci sentiamo dopo" project)

Reference acoustic consultant and supporting member of the Contemporary Music ensemble "Divertimento Ensemble" www.divertimentoensemble.it

2015 - up today

Member of the editorial board "ARCHITETTURA and TRASFORMAZIONE DEL COSTRUITO" edizioni Moretti & Vitali

2001-2002

Scientific translator from German into Italian

Cairolì M (2002). Atlante delle case unifamiliari. vol. 12, p. 1-180, TORINO: UTET, ISBN: 978-88-0205922-8

Cairolì M (2001). Atlante delle Tensostrutture. vol. 11, p. 1-216, TORINO: UTET, ISBN: 978-88-0205670-8

2017 up today

SMART LIVING for the presentation of experimental development and innovation (S&I) projects in favor of the "Smart Living" supply chain, in implementation of the regional law 26/2015 "Widespread, creative manufacturing and technology 4.0"; VTR BIO SYS Project Id project 379272. A research to find out new application for fiberglass in buildings: structural elements and perimetral panels are studied (structural thermal and acoustic research) and realized in a prototype House inside the Politecnico di Milano

Role: research coordination and process management

2016-2018

BOSIS Foundation - Scientific research activity for the definition of acoustic requirements and specifications for the redevelopment of the "La Stalla" theater in relation to the psychoacoustic criticalities of psychiatric patients.

2013-2016

Research and development project "BIOTHERM PANEL" financed by Regione Lombardia and MIUR (Ministero dell'Istruzione and Ministero dell'Università e della Ricerca), decree n°7128 del 29 July 2011, in the field of sustainable construction entitled "thermal acoustic construction systems". A research to find out new materials and technologies for thermal-acoustic insulation. Role: research coordination and process management

DESIGNER specialized in PERFORMING ART SPACES such as Opera Houses, Concert Halls, Multipurpose Auditoria, and consultant for BUILDING and ROOM ACOUSTICS, STAGE TECHNIQUES, MULTIMEDIA and STAGE LIGHTING (fly tower technologies) in new building projects as well as existing buildings.

Involved in integrated projects with a interdisciplinary approach and innovative technological solutions for construction details. The main activities are:

- ARCHITECTURAL DESIGNER FOR PERFORMING ART SPACES
- ACOUSTIC AND THEATER CONSULTANT (Executive Project Director)
- ACOUSTIC and ENERGY BUILDING CONSULTANT

After twenty years of experience as consultant, she develops her own architectural design in performing art spaces

2017

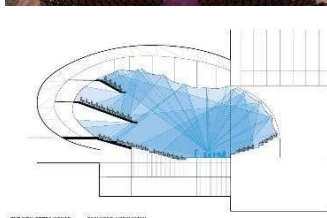
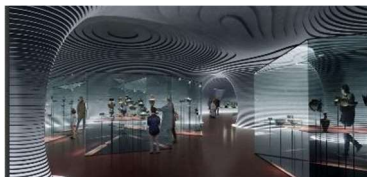
AUDITORIUM PIO ALBERGO TRIVULZIO – Milan, Italy

Designer: **Maria Cairolì (for Bioby s.r.l.)**

Architectural and specialized project design (building and room acoustics, lighting, stage craft machineries, multimedia) for a multipurpose space of 400 seats (from the concept to executive project)



ACOUSTIC AND THEATER CONSULTANT



2016

AUDITORIUM CALZEDONIA - Dossobuono Verona, Italy

Designer: **Maria Cairoli (for Biobyte s.r.l.)**

Architectural and specialized project design (building and acoustics, lighting, stage craft machineries, multimedia) for a multipurpose space of 1300 seats (from the concept to the realization project)

2002 up today

Theatre and acoustic Consultant for international recognized architects, through the partnership with Biobyte s.r.l. (Milan), responsible for the Research and Development of numerous projects in the areas of the Opera Houses, Concert Halls and multifunctional halls, with an interdisciplinary approach. She combines the acoustic-architectural design (A) including the room acoustics and building acoustics with electroacoustics (E), scenography (S), stage lighting (L) and energy analysis, with the role of Executive Project Director (PD). Innovative technological solutions for construction details are included. Acoustic environmental simulations and measurements (ante, infra, post operam and commissioning) are often included.

2019 up today

MUSEO ETRUSCO – Milano

Architectural Designer: **Mario Cuccinella**

PD (A,E,S,I) from the concept design to the construction details, Subway-Induced Vibration Measurement and Evaluation of the Structure on the Construction Site are included.

2019 up today

CULTURAL CENTER – Istanbul, Turkey

Architectural Designer: **Federico Castria - Gesidi Group**

PD (A,E,S,I)

700 seats ca. (multipurpose theater)

Chamber music halls, rehearsal rooms, recording studio are included

2015 up today

TEATRO DE SILVA – Rho Milano

Architectural Designer: **Arch. Ara Associati**

PD (A,E,S,I) from the concept design to the construction details, environmental acoustics (simulations and measurements) included

800 seats

multifunctional hall, rehearsal rooms, recording studio are included

2008 up today

PARCO DELLA MUSICA and DELLA CULTURA – Firenze

Architectural Designer: **Arch. ABDR**

PD (A,E,S,I) from the concept design to the construction details, environmental acoustics (simulations and measurements) included

1800 seats (main Opera House Hall)

1000 seats (multipurpose auditorium), rehearsal rooms, recording studio are included

2020

MUSIC AND DRAMA THEATRE Nur Sultan (Kazakhstan)

Architectural Designer: **Mabetex group**

PM, (A,E,S,I) for the multipurpose theatre from the concept design to the construction details

700 seats ca.

Chamber music halls, rehearsal rooms, recording studio are included

2018

BALLET AND OPERA THEATRE - Tashkent – (Uzbekistan)

Architectural Designer: **Alfonso Femia**

PM, (A,E,S,I) for the concept design

1200 seats ca. (multipurpose theater)

Chamber music halls, rehearsal rooms, recording studio are included

2013

CENTRO CULTURALE A.N.I.M.A – Grottammare (AP)

Architectural Designer: **Arch. B. Tschumi**

PD (A,E,S,I) from the concept design to the executive project (not realized yet)

1500 seats

Teaching rooms, rehearsal rooms, recording studio are included



ACOUSTIC CONSULTANT



2012

TEATRO RISTORI – Verona

Architectural Designer: **Aldo Cibic**

PD (A,E,S,I) from the concept design to the construction details

500 seats

Teaching rooms, rehearsal rooms, recording studio are included

2011

ARENA POLIFUNZIONALE – Algeri (Algeria)

Architectural Designer: **Arch. V.Gregotti Associati**

PM, (A,E,S,I) for the concept design

12.000 seats in the big arena

7 multipurpose rooms for 450 seats ca.

2010

EX GHIACCIAIA – Verona

Architectural Designer: **Arch. M. Botta**

PD (A,E,S,I) from the concept design to the executive project (not realized yet)

1900 seats

Teaching rooms, rehearsal rooms, recording studio are included

2010

TEATRO DELL'OPERA and DEL BALLETO – Astana (Kazakistan)

Architectural Designer: **Arch. ABDUR – IT Engineering**

PD (A,E,S,I) from the concept design to the construction details

1500 seats

Chamber music hall, rehearsal rooms, recording studio are included

2008

TEATRO PETRARCA – Arezzo

Architectural Designer: **Arch. Bracciali**

PD (A,E,S,I) from the concept design to the construction details

700 seats

2004- 2008

PARCO DELLA MUSICA - Roma

Architectural Designer: **Arch. Renzo Piano**

PM, executive and construction project for acoustics

2700 seats concert hall

1200 seats concert hall

700 seats multipurpose theater

Acoustic Consultant in buildings (libraries, residential houses, hotels, ...) in collaboration with different partners

WITH BIOBYTE S.R.L. WWW.BIOBYTE.NET

VIA SEGANTINI, 6 BERGAMO (ITALY)

2014

ISOZAKI TOWER (Citylife Milan)

Architectural Designer: **Arch. Isozaki**

PM: Acoustic consultant for the construction company Impregilo s.p.a.

2014

CHIESA SANTA GIANNA BERETTA MOLLA IN SANT'AMBROGIO

Architectural Designer: **studio Quattroassociati**

PD (A,E) from the concept design to the construction



2012

EX AREA MICHELIN TRENTO

Architectural Designer: **Arch. Renzo Piano**

PM: Acoustic consultant for the construction company Colombo s.p.a.



2010

MANDARIN ORIENTAL, COMO LAKE

PD (A,E) from the concept design to the construction details, environmental acoustics included



2009

BH4 BOSCOLO HOTEL MILANO (MI)

Architectural Designer: **arch. G. Marzorati**

PD (A,E) from the concept design to the construction details, environmental acoustics included



2009

CHIESA PARROCCHIALE DI LORETO, BERGAMO

Architectural Designer: **Vittorio Gregotti & Associates**

PD (A,E) from the concept design to the construction



2006

BEIC (BIBLIOTECA EUROPEA DI INFORMAZIONE E CULTURA), MILAN

Architectural Designer: **BOLLES+WILSON GmbH & Co. KG**

PD (A,E) from the concept design to the executive project (the project was not realized)

With Nagata Acoustics – www.nagata.co.jp

2130 Sawtelle Blvd, Suite 308, Los Angeles, CA 90025 (U.S.A.)

2008 **AUDITORIUM DI PADOVA** – Padova

Architectural Designer: **Arch. K.Kada**

Acoustic consultant for the concept design

With Arau Acustica – www.arauacustica.com

Travessera de Dalt 118, 08024 Barcelona (Spain)

2004

TEATRO ALLA SCALA – Milano

Architectural Designer: **Arch. M.Botta**

Acoustic consultant for the executive and construction project



CONCERT HALL – Amburgo (Germany)

Designer: **Arch. Herzog and Demeuron**

Competition for the Acoustic consultants, second prize

ARCHITECTURAL AND BUILDING ACOUSTIC COMPETITIONS

2021 – WINNER

Renovation project dell'ex Cinema Teatro Turreno, Perugia

Architectural designer: SMN ARCHITETTI

Acoustic and theatre designer: Maria Cairolì (PD Biobyte s.r.l.)

2014 – WINNER

PRICE INARCH/ANCE. V edition by "Istituto Nazionale di Architettura" and ANCE

"Associazione Nazionale Costruttori Edili"

Architectural construction company: Sac s.p.a.

Technological acoustic contraction detail: Maria Cairolì (PD Biobyte s.r.l.)

2013 - SECOND PRICE
 Competition "Renovation Design of the new auditorium" By Istituti Milanese Martinitt E Stelling E Pio Albergo Trivulzio
 Architectural and termoacoustic design: Maria Cairoli (PD Biobyte s.r.l.)

2013 - SECOND PRICE
 INTERNATIONAL COMPETITION "new Congress Center in Padua, Padova Design
 Architectural design: 5+1AA
 Acoustic Design: Maria Cairoli (PD Biobyte s.r.l.)

2007 - WINNER
 COMPETITION "Conferenza Episcopale Italiana 2007 per LE NUOVE CHIESE" by Conferenza Episcopale Italiana.
 Architectural design: AAAA QUATTROASSOCIATI
 Acoustic Design: Maria Cairoli (PD Biobyte s.r.l.)

2006 - SECOND PRICE
 INTERNATIONAL COMPETITION "design and realization of the new palace for the new hotel structures in Rho-Pero".
 Architectural design: Antonio Citterio and Partners
 Acoustic Design: Maria Cairoli (PD Biobyte s.r.l.)

2004 - SECOND PRICE
 INTERNATIONAL COMPETITION "design and realization of the new Palace for the Cinema in Venice" by La Fondazione Biennale di Venezia.
 Architectural design: Bolles + Wilson.
 Acoustic Design: Maria Cairoli

2003 - SECOND PRICE
 INTERNATIONAL COMPETITION "design of the new Teatro-auditorium in Almansa", Spain.
 Architectural Design: Arch. A.Ferreri, M.Persichella
 Acoustic Design: Maria Cairoli

EDUCATION AND TRAINING

2010
Energy building certification by the "Ordine degli Architetti", Milan, Italy

2009
Tecnico Competente in Acustica by "Regione Lombardia" Milan, Italy

2008
 Professional course "applied acoustics and building acoustics design",
 Università di Ferrara

PhD degree at Politecnico di Milano, Energy Department
 thesis "*Transmission loss through building partitions: simplified models*"

2002
 Professional Course: "acoustic design for musical spaces",
 Cini Foundation, Venice

Building Engineer Degree
 thesis: "*Musikvereinsaal: un'analisi acustica musicale*".

1996-1997
 Erasmus student at **TU - Vienna**

PERSONAL SKILLS AND COMPETENCES

Mother tongue(s)
 Other language(s)

Italian
 German C1, English C1, French A2, Spanish A1, rudimentary Chinese

Milan, 29/07/2021

MARIA CAIROLI