

CURRICULUM VITAE - Cédric Maury

Title	Professor in Acoustics
Teaching	Ecole Centrale Marseille (ECM) Technopôle de Château-Gombert - 38, rue Joliot Curie 13451 Marseille cedex 20 - E-mail: cedric.maury@centrale-marseille.fr
Research	Laboratory of Mechanics and Acoustics (LMA) - UMR CNRS 7031 SOUNDS Group - 4 Impasse Nikola Tesla - 13013 Marseille - Tel. +33 (0)484 524 204

Qualifications & Appointments

1995	Engineering and Master Diploma in Mechanics and Acoustics (Ecole Supérieure de Mécanique de Marseille - LMA)
1999 Marseille	PhD in Structural Acoustics (LMA) - Awarded PhD of the Year 2000 by Aix-University (AMU).
1999-2003	Research Fellow, Institute of Sound and Vibration Research, Southampton (UK).
2003-2009	Assistant Professor, Université de Technologie de Compiègne (UTC), HDR (2008)
2009-	Professor, Ecole Centrale Marseille

Academic Contributions

2009-	Head of the 3 rd year Training Programme in Acoustics at ECM.
2009-	Co-Head of the AMU-ECM Master in Acoustics (ended 2019).
2021-	Coordinator of the 3 rd semester of the Erasmus Mundus Master WAVES between Univ. Coimbra - Univ. Politec. Valencia, ECM and Aix-Marseille Univ.

Research Activities

2010-2013	PhD supervisor of Z. Liu (China Scholarship Council - ECM): Near-field effects on the acoustic radiation modes of vibrating structures . PhD defended on 09/14.
2010-2014	Member of the IROQUA Scientific Committee (Advisory Council for Research on Noise Reduction in Aeronautics).
2014-2015	Coordinator of the AEROPUMP Carnot STAR Project LMA, CSIC, IRPHE and PSA): Optimization of ultra-micro-perforated panels under an aerodynamic excitation .
2017-2021	Co-Principal Investigator for the ANR Project VIRTECH: Virtualization of Experimental Facilities in Structural Acoustics by Wall-Pressure Synthesis .
2018-2021	PhD co-supervisor of A. Pouye (ANR VIRTECH): Synthetic reproduction of acoustic wall-pressure fields over planar and curved structures . PhD defended on 09/22.
2022-2023	Principal Investigator for the AMU Institute of Mechanics and Engineering Project "Metamaterials": Aero-acoustic and aerodynamic metamaterials for the reduction of low frequency noise under flows in the transport and energy sectors .

Publications (since 2017)

- **1 book chapter:**

Maury C., Bravo T. & Mazzoni D. 2021 Absorption and transmission of boundary layer noise through micro-perforated structures: measurements and modellings, in *FLINOVIA - Flow-Induced Noise and Vibrations Issues and Aspects - III*. Ciappi, E., De

Rosa, S., Franco, F., Hambric, S.A., Leung, R.C.K., Clair, V., Maxit, L., Totaro, N. (Eds.), Springer Nature, Switzerland.

- **13 publications in peer-reviewed international journals** amongst which:
 - Bravo T. & **Maury C.** 2022 *J. Sound Vib.* **523**, 116735. Causally-guided acoustic optimization of rigidly-backed micro-perforated partitions: Case studies and experiments
 - Bravo T. & **Maury C.** 2022 *J. Sound Vib.* **520**, 116634. Causally-guided acoustic optimization of single-layer rigidly-backed micro-perforated partitions: Theory.
 - Pouye A., Maxit L., **Maury C.** & Pachebat M., 2021 *J. Sound Vib.* **510**, 116307. Reproduction of the vibroacoustic response of panels under stochastic excitations using the source scanning technique.
 - **Maury C.** & Bravo T. 2021 *J. Sound Vib.* **500**, 116042. Enhanced modal matching method for macro- and micro-perforated plates.
 - **Maury C.**, Bravo T., Mazzoni D., Amielh M. and Pietri L., 2021 *POMA (Proc. Meet. Acoust.)* **42**, 040001. Cost-efficient characterization of the aeroacoustic performance of micro-perforated wall-treatments in a wind-tunnel.
 - Bravo T. & **Maury C.**, 2021 *POMA (Proc. Meet. Acoust.)* **42**, 040002. Assessing the broadband absorption properties of micro-capillary plates through modelling and experimental studies.
 - **Maury C.** & Bravo T. 2020 *J. Sound Vib.* **478**, 115356. Wideband sound absorption and transmission through micro-capillary plates: Modelling and experimental validation.
 - **Maury C.**, Bravo T. & Mazzoni D. 2019 *J. Sound Vib.* **439**, 1-16. The use of microperforations to attenuate the cavity pressure fluctuations induced by a low-speed flow.
 - Bravo T. & **Maury C.** "The attenuation of the cavity tones induced by a low-speed flow using micro-perforated panels", Sec. 2.6 in Gély D. & Bennett G. J. 2019 *J. Sound Vib.* **463**, 114950. Aeroacoustics research in Europe: The CEAS-ASC report on 2018 highlights.
 - Bravo T. & **Maury C.** 2018 *J. Sound Vib.* **425**, 189-207. Sound attenuation and absorption by micro-perforated panels backed by anisotropic fibrous materials: Theoretical and experimental study.
 - Bravo T. & **Maury C.** 2018 *J. Sound Vib.* **417**, 165-181. Sound attenuation and absorption by anisotropic fibrous materials: Theoretical and experimental study.
 - Bravo T., **Maury C.** & Pinhède C. 2017 *J. Sound Vib.* **395**, 201-223. Absorption and transmission of boundary layer noise through flexible multi-layer micro-perforated structures.
 - Liu Z. & **Maury C.** 2017 *Applied Acoustics* **115**, 23-31. Numerical and experimental study of Near-Field Acoustic Radiation Modes of a baffled spherical cap
- **20 international conferences with peer-reviewed papers** amongst which:
 - Bravo T. & **Maury C.**, *Influence of structural resonances on the causal-based optimization of micro-perforated absorbers*, Acoustics In Focus 2021 (Acoustical Society of America e-Congress), Acoustic Metamaterials II, 8-10 June 2021.
 - **Maury C.** & Bravo T., *Enhanced modal matching formulation for a cost-efficient computation of the acoustical properties of multi-layer perforated and micro-perforated partitions*, Acoustics In Focus 2021 (Acoustical Society of America e-Congress), Computational Methods for Complex Media and Geometries I, 8-10 June 2021.
 - Bravo T. & **Maury C.**, *Enhanced low frequency broadband dissipation using micro-capillary plates*, Acoustics Virtually Everywhere 2020 (179th Acoustical Society of America e-Congress), 7-11 December 2020.

- Bravo T. & **Maury C.**, *Aeroacoustic characterization of micro-perforated liners under a low-speed turbulent boundary layer*, INTERNOISE 2020 (e-Congress), 1-4-762, Seoul, South Korea, 23-26 August 2020.
- Bravo T. & **Maury C.**, *Absorption and Transmission through Functionally-Graded Micro Perforated Panels*, INTERNOISE 2019, 35, Madrid, 16-19 June 2019.
- Bravo T. & **Maury C.**, *The Attenuation of Flow-Induced Cavity Noise in a Wind-Tunnel by Micro-Perforations*, INTERNOISE 2019, 286, Madrid, 16-19 June 2019.
- T. Bravo and **C. Maury**, *Sound Attenuation in a Flow Duct Periodically Loaded with Micro-Perforates Backed by Helmholtz Resonators*, INTERNOISE 2018, the 47th International Congress and Exposition on Noise Control Engineering, Chicago, USA, August 2018.
- **C. Maury**, T. Bravo, D. Mazzoni and M. Amielh, *Effect of micro-perforations on the attenuation of discrete cavity tones induced by a low-speed flow*, INTERNOISE 2017, Hong Kong, August 2017.