

INMETRO - DIVISION OF ACOUSTICS AND VIBRATION METROLOGY**LIST OF TECHNICAL PUBLICATIONS IN THE PERIOD 2010 – 2023****ELECTROACOUSTICS:**

- T.A.B. MILHOMEM, Z.M.D. SOARES; “**Phase sensitivity microphone calibration**”, In Proc. of the XII Congresso Iberoamericano de Acústica (FIA 2022) / XXIX Encontro da Sobrac, 28- 31 August 2022, Florianópolis, SC, Brasil.
- Z.M.D. SOARES, T.A.B. MILHOMEM, N.M.E. SANTO, E.B. PINTO; “**Personal sound exposure meters: A study of measurements methods of the acoustic performance**”, In Proc. of the XII Congresso Iberoamericano de Acústica (FIA 2022) / XXIX Encontro da Sobrac, 28- 31 August 2022, Florianópolis, SC, Brasil.
- T.A.B. MILHOMEM, Z.M.D. SOARES; “**Measurement Microphones: Working principle and main characteristics**” (In Portuguese: Microfones de medição: princípio de funcionamento e principais características), In: Proc. of the 11º Congresso Brasileiro de Metrologia, 18-21 October 2021.
- MILHOMEM, T. A. B.; SOARES, Z. M. D.; RIPPER, G. P.; HANES, P.; SOLANO, A.; SERRANO, F. A.; GUEVARA, G. M.; AYALA, J. P.; “**Distortion measurements of sound pressure level generated by a pistonphone**”; In: Proc. InterNoise 2021, 1-5 August, Washington DC, USA. <https://doi.org/10.3397/IN-2021-1136>.
- T A B MILHOMEM, Z M D SOARES, G P RIPPER, J P AYALA, G M GUEVARA, F A SERRANO, A SOLANO, R P WAGNER AND P HANES; “**Final report on supplementary regional comparison SIM.AUV.A-S2: calibration of pistonphone**”, Metrologia, Volume **57**, Number 1A, 2020. <https://doi.org/10.1088/0026-1394/57/1A/09002>.
- SOARES, Z.M.D.; SILVA, I.F.C; ESPIRITO-SANTO, N.M.; “**Maximum Measurement Uncertainty: Hearing Aids**”. In: Proc. of the 23rd International Congress on Acoustics (ICA 2019), 09-13 September 2019, Aachen, Germany.
- MILHOMEM, T.A.B.; SOARES, Z.M.D.; “**Experimental determination of the difference between diffuse and pressure field sensitivities of half-inch laboratory standard microphones**”. In: Proc. of 48th International Congress and Exhibition on Noise Control Engineering (Internoise 2019), 16-19 June 2019, Madrid, Spain.
- MILHOMEM, T.A.B.; SOARES, Z.M.D.; MUSAFIR, R.E.; MÜLLER, S.; “**Diffuse-field reciprocity calibration of half-inch laboratory standard microphones using simultaneous reverberation time measurement**”. The Journal of the Acoustical Society of America 143, 3658 (2018); doi: 10.1121/1.5043395.
- SOARES, Z.M.D.; MASSON, Z.N.; PAUL, S.; “**Quality assurance of hearing aids in Brazil**”, In: Proc. of SOBRAC 2018, paper #83853, 3-5 October 2018, Porto Alegre, Brazil (In Portuguese: Garantia da Qualidade dos Aparelhos de Amplificação Sonora Individual no Brasil).
- PINTO, E.B.; SOARES, Z.M.D.; “**Periodic verification of Sound Level Meters: Acoustic performance of frequency weighting**”, In: Proc. of SOBRAC 2018, paper #84015, 3-5 October 2018, Porto Alegre, Brazil (In Portuguese: Verificação Periódica de Sonômetros: Desempenho Acústico da Ponderação em Frequência).
- MILHOMEM, T.A.B.; SOARES, Z.M.D.; “**Microphone calibration in infrasonic frequencies**”, In: Proc. of SOBRAC 2018, paper #83320, 3-5 October 2018, Porto Alegre, Brazil (In Portuguese: Calibração de Microfones em Frequências Infrassônicas).
- MILHOMEM, T.A.B.; SOARES, Z.M.D.; “**Proficiency test on the calibration of sound level meter sets - PEP 001/2014**”, In: Proc. of SOBRAC 2018, paper #83321, 3-

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- KLING, C.; FEDTKE, T.; SOARES, Z.; MILHOMEM, T.; **“Metrology for infrasound measurements”**. In: Proc. of the 24th International Congress on Sound and Vibration - ICSV24, July 2017, London, UK.
- KLING, C.; WIECZOREK, J.; MILHOMEM, T.; SOARES, Z.; **“An Investigation on Microphone Calibration at Infrasound Frequencies”**. Internal Report - Bilateral Project for Strengthening the Quality Infrastructure for Renewable Energies and Energy Efficiency in Brazil, Technical cooperation between PTB and Inmetro, 2017.
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- SOARES, Z.M.D.; “**Calibration Artificial Ear**”, In: Proc. XXIII SOBRAC, 2010, Salvador, Brazil (In Portuguese: Calibração de Ouvido Artificial).
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ACOUSTICAL TESTING:

- M.A. AMARAL; M.N.L. DAMASCENO; “**Noise dosimetry applied to occupational noise exposure in scientific research laboratories**”, In Proc. of the XII Congresso Iberoamericano de Acústica (FIA 2022) / XXIX Encontro da Sobrac, Florianópolis, SC, 28-31 August 2022, Florianópolis, SC, Brasil.. (In Portuguese: Correspondência entre sinais impulsivos de reflexão e incidência sonora sobre superfícies difusoras).
- MASSARANI, P.M.; VILLELA, R.; PAZOS, D.; “**Measurement of Diffuse-Field Sound Absorption Coefficient of Materials Using the Two Microphones Method**”. In: Proc. of the 23rd International Congress on Acoustics (ICA 2019), 09-13 September 2019, Aachen, Germany.

- PAULO MEDEIROS MASSARANI; RICARDO LUÍS D' ÁVILA VILLELA; DANIEL F. P. PAZOS; “**Estimation of sound absorption coefficient by diffuse incidence using the 2 microphone method**”, In: Proc. of XXVIII Encontro Nacional da Sociedade Brasileira de Acústica - SOBRAC 2018, paper #83685, 3-5 October 2018, Porto Alegre, Brazil (In Portuguese: Estimativa de Absorção Sonora por Incidência Difusa Utilizando o Método dos dois Microfones).
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VIBRATION:

- G.P. RIPPER, R.S. DIAS, G.B. MICHELI, C.D. FERREIRA; **“An analysis of the participation of INMETRO in interlaboratory comparisons in vibration measurements”**; In: Proc. of IMEKO 24th TC3, 14th TC5, 6th TC16 and 5th TC22 International Conference, 11 – 13 October 2022, Cavtat-Dubrovnik, Croatia, <https://doi.org/10.21014/tc22-2022.146>.
- GUSTAVO P. RIPPER, RONALDO S. DIAS, GIANCARLO B. MICHELI, CAUÊ D. FERREIRA; **“Analysis of input impedance influence on calibration of charge conditioning amplifiers”**; In: Proc. of XXIII IMEKO World Congress, August 30 - September 3, 2021, Yokohama, Japan. Measurement: Sensors, Volume 18, December 2021, 100359, <https://doi.org/10.1016/j.measen.2021.100359>.
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