

National Conference on Noise Control Engineering (NOISE-CON 2020)

Jazzin' Up Noise Control

Online
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Volume 1 of 2

Editors:

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Steve Sorenson**

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Gordon Ebbitt**

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NOISE-CON 2020 – Plenary and Technical Sessions

Papers are listed by Day, First or Second Session, Track,
and Order of Presentation

All times are Eastern Standard Time

MONDAY – NOVEMBER 16, 2020

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Monday, November 16, 2020

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- 14:00 **Oral Only** ***Overview Of Richard H. Lyon'S 1971 Paper On Analysis Of Sound-Structure Interaction By Theory And Experiment***
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- 15:40 **Oral Only** ***Overview Of Prasad'S 1987 Paper On A Four Load Method For Evaluation Of Acoustical Source Impedance In A Duct***
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Monday, November 16, 2020

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THURSDAY – NOVEMBER 19, 2020

Plenary Session

11:00 **Oral Only** *Underwater acoustic noise effects on marine mammals in the northern Gulf of Mexico*
Dr. Juliette W. Ioup, University of New Orleans

Piping and Hydraulic System Noise

Chairpersons: Mandy Kachur, Jeanette Hesedahl

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Chairpersons: Andrew Barnard, Tyler Dare

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- 13:40 [NC20_422.pdf](#) ***Gunshot Suppressors And Sound Level Meters Dbz Peak Performance Tests*** 754
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- 15:20 [NC20_380.pdf](#) ***Sound Transmission Regulations And Testing On Marine Vessels*** 779
Allan Beaudry, Noise Control Engineering, LLC; Jeffrey Hunt, Noise Control Engineering, LLC; Jesse Spence, Noise Control Engineering, LLC
- 15:20 [NC20_485.pdf](#) ***SNAME T&R 3-37 Overview*** 787
Isaac Harwell, CSTI acoustics; Robert Bruce, CSTI acoustics; Adam Young, CSTI acoustics; Arno Bommer, CSTI acoustics

Tutorial on Sound Level Meters, Part 2

Chairpersons: Andrew Barnard, Tyler Dare

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- 15:00 [NC20_439.pdf](#) ***Tutorial On Sound Level Meters: Tips For Making Standardized Measurements With A Sound Level Meter*** 791
Andrew Barnard, Michigan Tech University; Eoin King, University of Hartford
- 15:20 [NC20_445.pdf](#) ***Tutorial On Sound Level Meters: Conducting A Noise Survey With An Slm*** 797
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- 15:40 [NC20_536.pdf](#) ***What Can "Go Wrong" In Acoustic Measurements: Common Errors, Hardware Failures And Mistakes.*** 803
Brian MacMillan, NTi Audio

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MG Prasad Memorial Session

Chairs: David Herrin, Prakash Thawani, Patrick Marks, Rajavel Balaguru

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- 15:00 [NC20_547.pdf](#) *An Appreciation Of The Exhaust System Research Of Prasad And Crocker* 814
D. W. Herrin, University of Kentucky

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Standards, Noise Policies and Regulations

Chairpersons: Paul Burge, Chris Kaiser

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- 13:00 [NC20_458.pdf](#) *Measuring In-Situ Sound Power Using A Simplified Acoustic Energy Density Method* 821
Travis N Hoyt, Brigham Young University; Scott D Sommerfeldt, Brigham Young University; David C Copley, Caterpillar Inc.; Jonathan D Blotter, Brigham Young University
- 13:20 [NC20_538.pdf](#) *What Defines A Sound Level Meter In The Us Has Changed. Ansi/Asa S1.4 Equals Iec 61672. Understanding The Differences* 833
Brian MacMillan, NTi Audio; Berno Nigsch, NTi Audio AG
- 13:40 [NC20_618.pdf](#) *Proposed Operator Positions For Rack-Mounted Equipment Measurements In Ecma-74* 843
Seth Bard, IBM; Ken Shadoff, IBM; Robert Boyes, IBM

Sound Quality

Chairpersons: Patricia Davies, Shashikant More, Daniel Carr

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- 13:00 [NC20_373.pdf](#) *Promoting A Quiet Revolution Through Product Noise Control* 853
David Nelson, Nelson Acoustics
- 13:20 [NC20_552.pdf](#) *Automotive Door Closure Sound Quality: Model, Target Definition And Identification Of Countermeasure For Performance Improvement* 859
Rabah Hadjit, Bruel & Kjaer North America Inc.

- 13:40 [NC20_345.pdf](#) ***Dishwasher Sound Quality Consumer Study With Factorial Treatment Of Background Variables*** 869
Daniel Lesko, Whirlpool Corporation and Michigan Technological University; Andrew Barnard, Michigan Technological University
- 14:00 [NC20_544.pdf](#) ***Interactive Sound Quality Evaluation Of An Ev Virtual Prototype*** 877
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Noise Control Tutorials and Tools

Chairpersons: Andrew Barnard, Tyler Dare

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- 13:00 [NC20_361.pdf](#) ***Hearing Conservation Program Best Practices For Noise Control Engineers*** 888
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- 13:20 [NC20_599.pdf](#) ***A Simple Spreadsheet Tool For Noise Path Characterization*** 892
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- 13:40 [NC20_401.pdf](#) ***Elements Of Uncertainty In The Prediction And Measurement Of Airborne Sound*** 900
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Aerodynamic Noise Prediction 1

Chairpersons: Robert Powell, Kristin Cody

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- 13:00 [NC20_433.pdf](#) ***Automotive Aerodynamic Noise Prediction Using Scale Resolved Stress-Blended Eddy Simulation*** 911
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- 13:20 [NC20_389.pdf](#) ***Aeroacoustics Noise Prediction Of Low Mach Number Flow Using Hybrid Wave Equation Model*** 924
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Urban Air Mobility and Unmanned Aerial Vehicle Acoustics

Chairpersons: Greg Goetchius, Randolph Cabell

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- 15:00 [NC20_474.pdf](#) ***Anechoic Chamber Measurement Of An Octocopter*** 950
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- 15:20 [NC20_607.pdf](#) ***Evaluation Of Embedded Windshield Resonators To Reduce Cabin Noise Of A Uam Concept Aircraft*** 958
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- 15:40 [NC20_632.pdf](#) ***Passenger Acceptance Of Vtols For Uam*** 968
James D. Rall, ShockTech; Benjamin Reydel, ShockTech; Daryoush Allaei, ShockTech

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- 15:20 [NC20_349.pdf](#) ***Integrating Point-Of-View Video Into Hearing Conservation Programs For Improved Outcomes*** 987
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Daryoush Allaei, R&D Department, ShockTech; James Rall, R&D Department, ShockTech

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Chairpersons: Robert Powell, Kristin Cody

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- 15:00 [NC20_395.pdf](#) ***Numerical Simulation Of Underhood Cooling Noise For Off-Highway Application*** 1012
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- 15:40 [NC20_570.pdf](#) ***Numerical Modeling And Method Of Air Bearing-Based Vibration And Noise Mitigation*** 1031
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