

NOISE-CON 07 Papers

Listed by INCE Primary Subject Classification

00 GENERAL

07 Education

- NC07_139** *ANIMATED Auditory Demonstrations II: a NASA educational resource for demonstrating acoustical parameters by coupling auditory experiences with sequences of visual cues* (07, 60)
Beth A. Cooper

10 EMISSION: NOISE SOURCES

11 Noise-Generating Devices

- NC07_274** *Improved gear whine model with focus on friction-induced structural-borne noise* (11.1.3, 21.2.3)
Song He, Rajendra Singh and Goran Pavic
- NC07_200** *Fan selection and installation issues related to spaceflight hardware* (11.4, 12.3)
David A. Nelson
- NC07_263** *Cooling requirements, chassis design and fan noise* (11.4, 12.3)
David A. Nelson
- NC07_302** *Sound quality investigation of notebook inlet grilles* (11.4, 63.7)
Jessica Gullbrand, Marco Beltman, Mark MacDonald and Jose A. Cordova
- NC07_237** *Optimal near-field error sensor locations for active control of fan noise using multipole expansions* (11.4.1, 38.3)
Benjamin M. Shafer, Kent L. Gee and Scott D. Sommerfeldt
- NC07_248** *Prediction of diesel engine cooling fan noise* (11.4.1, 11.6.4.1)
Geon-Seok Kim, Gerald C. Lauchle and Timothy A. Brungart
- NC07_300** *Measurement and evaluation of blade passage frequency fluctuations* (11.4.1, 38.2)
Cole V. Duke, Scott D. Sommerfeldt, Kent L. Gee and Connor R. Duke
- NC07_130** *Comparison of on-plenum to in-system blower noise* (11.4.2, 12.3.4.1)
Eric Baugh

- NC07_131** *Constant sound power fan curves for small blowers* (11.4.2, 12.3.4.1)
Eric Baugh and Mark MacDonald
- NC07_132** *Fan optimization for mobile system installed conditions* (11.4.2, 12.3.4.1)
Eric Baugh
- NC07_282** *Experimental determination of far field sound power field due to panel and vent radiation on a portable diesel generator* (11.5.2, 37.7)
Jason Sagers, Jonathan Blotter and Scott Sommerfeldt
- NC07_208** *REMEL database developed for different PCC pavement surfaces* (11.7, 13.2)
James A. Reyff
- NC07_128** *On-board sound intensity testing of PFC pavements in Texas* (11.7.1, 13.2)
Manuel Trevino and Terry Dossey
- NC07_163** *Evaluation of close-proximity methods for tire/pavement noise measurements* (11.7.1, 72.3)
Richard Ruhala
- NC07_194** *Tire-pavement and traffic noise research in the state of Colorado* (11.7.1, 52.3)
Robert O. Rasmussen, Eric P. Mun and Roberto E. DeDios
- NC07_204** *Reduction of traffic and tire/pavement noise: 3rd year results of the Arizona quiet pavement program* (11.7.1, 13.2)
James A. Reyff
- NC07_217** *Evaluation of OBSI for measuring tire-pavement noise* (11.7.1, 52.3)
Andre de Fortier Smit and Brian Waller
- NC07_239** *The application of sound intensity to the evaluation of pavement for tire/road noise performance - The OBSI approach* (11.7.1, 13.2)
Paul R. Donovan and Bruce Rymer
- NC07_240** *Considerations in the standardization of On-Board Sound Intensity (OBSI) for highway pavement evaluation* (11.7.1, 71.1.3)
Paul Donovan, Dana M. Lodico and Bruce Rymer
- NC07_292** *Truck tires and quieter pavement contribution to roadside noise levels* (11.7.1, 13.2)
Bruce Rymer and Paul Donovan

- NC07_313** *Effects of diamond grinding and grooving on tire/pavement noise* (11.7.1, 52.3)
Tyler P. Dare, Robert J. Bernhard and William D. Thronton
- NC07_117** *Active steering control system of a rail vehicle based on the analysis of the sound radiation* (11.7.2, 13.4.1)
Maksym Spirya gin, Kwan Soo Lee, Hong Hee Yoo, Valentyn Spirya gin and Yuriy Vivdenko

12 Stationary Noise Sources

- NC07_207** *Considering the risk to hearing from listening to music on earphones from IT equipment* (12.3, 61.3)
Egons Dunens and Robert D. Hellweg, Jr.
- NC07_110** *Possibility for errors in tone-to-noise ratio calculation arising out of insufficient FFT resolution* (12.3.3, 74.3)
Roger Upton
- NC07_166** *Server system acoustic optimization through fan speed control modeling and sensitivity study* (12.3.4, 11.4)
Kaleen XiuTing C. Man
- NC07_171** *Influence of laptop fan noise on speech intelligibility in small meeting rooms and classrooms* (12.3.4, 63.3)
Felipe Orduna Bustamante, Ana Laura Padilla Ortiz, Rafael de la Guardia Gonzalez and Jose A. Cordova Magana
- NC07_182** *Finding root causes and solution to the PC cooling fan noise problems* (12.3.4, 49.2.1)
Shu-Ho (Brian) Lin and Hsien-Sheng (Jason) Pei
- NC07_199** *The acoustic amplification of system enclosures using elementary noise sources* (12.3.4.1, 32)
Willem M. Beltman, Rafael de la Guardia and Jose Cordova
- NC07_152** *Identification of transient events from a hard disk drive using non-stationary loudness* (12.3.4.3.1, 74.6)
Dave Ali
- NC07_297** *Challenges for diagnostic measurement of acoustical environments in quiet modular classrooms* (12.3.5, 51.1)
Louis Sutherland and David Lubman
- NC07_111** *Conformal mapping techniques for consumer products* (12.4.4, 75.7)
Roger Upton, Karim Haddad and Jes Sorensen

- NC07_102** *Transmission loss of different configurations of a refrigerant muffler using FEM approach* (12.4.6.1, 75.3)
Parag H. Mathuria and Macinissa Mezache
- NC07_334** *An engineering approach to noise abatement in washing machines* (12.4.6.3, 75.3)
Dev Barpanda, Jay Tudor and Saeed Siavoshani
- NC07_169** *What dreadful noise of waters in mine ears* (12.4.8, 51.9)
Ewart A. Wetherill
- NC07_283** *Techniques and confidence estimates for uncertainty analysis of measuring sound power of power tools* (12.5.1, 72.4)
Edward Zechmann and Charles Hayden
- NC07_281** *Composite saw blade technology* (12.5.1.3, 38.5)
John Homer and Leonard Marraccini

13 Moving Noise Sources

- NC07_137** *Modeling methods for vibro-acoustic analysis of commercial aircrafts* (13.1, 43)
Vincent Cotoni, Bryce Gardner, James Carneal and Chris Fuller
- NC07_286** *Airborne weaponry noise measurements* (13.1, 72.8)
Micah Downing, Michael James, Bruce Ikelheimer, Christopher Hobbs and Sally Anne McNerny
- NC07_303** *Development of an advanced acoustic model for military aircraft noise* (13.1, 26)
Kenneth J. Plotkin and Troy Schultz
- NC07_195** *Problems in predicting noise levels on launch vehicles at liftoff* (13.1.2, 13.1.5.4)
John F. Wilby
- NC07_103** *Interior noise study of an aluminum fuselage aircraft using Statistical Energy Analysis* (13.1.6, 75.2)
Indranil Dandaroy and Mohammed Taj Bhuiyan
- NC07_129** *Headsets in the light aircraft cockpit: speech intelligibility, PELs, and flight performance* (13.1.6, 36)
John G. Casali, R. Brian Valimont, Jeff A. Lancaster and Dan Gauger

- NC07_213** *Experimental study and model verification of noise control with gas layers* (13.1.6, 35.2.2)
Christina J. Naify, Changzheng Huang, Shankar Rajaram, Matthew Sneddon and Steve Nutt
- NC07_215** *Loss factors of honeycomb sandwich structures: An experimental approach* (13.1.6, 47.3)
Portia Peters, Steven Nutt and Matthew Sneddon
- NC07_223** *Passive control of sound transmission through a double panel using heterogeneous (HG) blankets, Part III: HG design strategies* (13.1.6, 47)
Kamal Idrisi, Marty Johnson and James P. Carneal
- NC07_288** *Reconstruction of in-flight interior acoustic field of an business jet using HELS method* (13.1.6, 74.6)
Washington de Lima, Manmohan S. Moondra and Sean F. Wu
- NC07_153** *Road, chassis, powertrain and wind contributions to in-vehicle vibration and noise* (13.2.1, 49.1)
Steven R. Sorenson and Aaron M. Lock
- NC07_291** *A comparison of green and standard diesel bus noise levels* (13.2.3, 52.3)
Jason C. Ross and Michael A. Staiano
- NC07_172** *Active structural acoustic control for a truck oil pan: Actuator placement and efficiency estimation* (13.2.4, 38.3)
Olaf Heintze
- NC07_179** *Vibration transmission and damping at railway lines and noise emission* (13.4, 47.1)
Peter Beke
- NC07_295** *Effects of different procedures for characterizing rail transit generated ground vibration* (13.4, 74.9)
Hugh Saurenman, Zack Dennis and Jeffery Zapfe
- NC07_294** *New Federal policy on rail quiet zones: Pathwaay or roadblock to quieter grade crossings?* (13.4.1, 82)
Paul L. Burge and Lance D. Meister
- NC07_185** *Tram wheel vibrations dependence on the rail surface geometry in weld zone* (13.4.3, 52.4)
Stjepan Lakusic and Marijan Bogut

NC07_340 *Eigenvalue equalization applied to the active minimization of engine noise in a mock cabin (13.7.1.8, 38.2)*
Jared K. Thomas, Stephan P. Lovstedt, Jonathan D. Blotter and Scott D. Sommerfeldt

NC07_285 *Case study of industrial vehicle noise control by discrete source identification and analysis (13.7.2.3, 70)*
David A. Hamilton

14 Specialized Industrial Machinery and Equipment

NC07_218 *Green noise reduction: Sustainable sound control (14.1.4, 51)*
James Clunan

NC07_108 *Technologically achievable engineering and administrative noise controls for the mining industry (14.3, 08.1)*
John P. Seiler and Melinda Pon

NC07_332 *Low-cost operator installed engineering noise controls on surface coal augers (14.3, 30)*
Link R. Bowers

NC07_333 *Cooperative noise control demonstration for a slot drill in the dimension stone industry (14.3, 30)*
Anthony S. Argirakis

NC07_109 *A dual sprocket chain as a noise control for a continuous mining machine (14.3.2, 11.1.9)*
Peter G. Kovalchik, Adam K. Smith, Rudy J. Matetic and Lynn A. Alcorn

NC07_119 *Application of a microphone phased array to identify noise sources on a roof bolting machine (14.3.2, 72)*
David S. Yantek, J. Shawn Peterson and Adam K. Smith

NC07_158 *Results of noise measurements from underground testing of a roof bolting machine duty cycle. (14.3.2, 72.9)*
Jeffrey Shawn Peterson and Lynn Alcorn

NC07_314 *Determining underground roof bolting machine operators noise exposure using laboratory results (14.3.2, 62)*
R.J. Matetic, Peter Kovalchik, Gregory Cole, Jeffrey Peterson and Syd Pend

NC07_104 *Reducing low frequency boiler stack noise in the community (14.5.3, 52.1)*
George F. Hessler

NC07_284 *Propagation modeling parameters for wind turbines* (14.5.4, 24)
Kenneth Kaliski and Edward Duncan

20 PHYSICAL PHENOMENA

21 Physical Mechanisms of Noise Generation

NC07_296 *Nonlinear effects in the propagation and measurement of blast noise*
(21.3.4, 21.6.8)
Victor W. Sparrow, Larry L. Pater and Thomas B. Gabrielson

NC07_234 *Investigation of Strouhal number effect on acoustic fields* (21.6.1, 38.5)
Osama Marzouk

NC07_236 *Effect of convection velocity of launch vehicle vibration response* (21.6.4,
86)
Paul Blelloch

NC07_181 *A new experimental device for measuring sonic boom transmission into
buildings* (21.6.7, 64.3)
Yusuke Naka and Yoshikazu Makino

NC07_231 *Noise emissions from excited jets* (21.7, 76.9)
Osama Marzouk

23 Propagation, Transmission & Scattering of Sound

NC07_318 *Noise mitigation using passive vibroacoustic attenuation devices* (23, 38)
Steven Griffin and Steven Lane

NC07_134 *Flow resistivity effect on sound absorption and sound transmission loss of
film-faced foam* (23.9, 35.2.3)
Jeongwoo Kim

24 Sound Propagation in the Atmosphere

NC07_224 *Microphysical influences on sound wave and laser light propagation in
forested areas* (24, 24.6)
Arnold Tunick and Michelle E. Swearingen

NC07_212 *Community noise verification measurements for a highway in a suburban
environment* (24.6, 52.1)
James P. Chambers, Hugh Saurenman, Robert Bronsdon, Louis Sutherland,
Roger Waxler, Ken Gilbert and Carrick Talmadge

NC07_242 *Effect of finite atmospheric sampling on predictive skill for broadband sound-exposure levels (24.6, 76.1.1)*
D. Keith Wilson and Matthew S. Lewis

NC07_243 *Weather effects on outdoor noise exposure: Where, when, and how often to measure? (24.6, 52.1)*
D. Keith Wilson

30 NOISE CONTROL ELEMENTS

31 Barriers and Screens, Shielding

NC07_277 *Acoustical banners (31, 35.3)*
Charles W. Splain

32 Enclosures for Noise Sources

NC07_160 *Case studies illustrating the importance of de-coupling the mass layers of demising walls in multi-family luxury condominiums and townhomes (32.2, 33)*
Robert M. Lilkendey and Gary W. Siebein

NC07_266 *Low frequency sound transmission of high-performance residential windows (32.6, 51.3)*
Daniel H. Robinson, Robert J. Bernhard and Luc G. Mongeau

34 Filters, Mufflers, Silencers and Resonators

NC07_350 *Drum silencer optimized for NC-weighted insertion loss (34, 26)*
Y.S. Choy and L. Huang

NC07_167 *Modeling of adaptively tunable flow driven resonators for axial fan blade tone noise attenuation (34.2, 11.4.1)*
Lee J. Gorny, Gary L. Koopmann, Wolfgang Neise and Olaf Lemke

35 Absorptive Materials

NC07_322 *Theoretical and impedance tube estimates of acoustical absorption of pavement cores (35, 52.3)*
James T. Nelson, Erwin Kohler, Aybike Ongei and Bruce Rymer

NC07_112 *Floor and ceilings and noise control (35.4.1, 51.3)*
James R. Keene

NC07_324 *Random incidence sound absorption of coefficient microperforated absorbers (35.6, 32.1)*
Niranjan R. Londhe, J. Stuart Bolton, Taewook Yoo, Jonathan H. Alexander and David F. Slama

NC07_325 *An improved model for microperforated absorbers (35.6, 32.1)*
Taewook Yoo, J. Stuart Bolton, David F. Slama and Jonathan H. Alexander

37 Noise Attenuation and Transmission in Ducts

NC07_254 *Effect of lagging material on duct breakout noise (37.5, 31)*
Matthew Golden and Thomas Paige

NC07_261 *The effect of structural loss factor on the calculation of pipe wall transmission loss (37.5, 76.9)*
Daniel Eilers and Fred Catron

38 Special Treatments

NC07_170 *Active control of periodic fan noise in laptops. (38.2, 12.3.4)*
Felipe Orduna Bustamante, Hector Alfonso Cordourier Maruri and Rafael de la Guardia Gonzalez

NC07_201 *Optimization of control source locations in a free-field active noise control application using a genetic algorithm (38.2, 38)*
Connor R. Duke, Scott D. Sommerfeldt, Kent L. Gee and Cole V. Duke

NC07_101 *Burn acute care unit acoustical design for enhanced patient comfort (38.5, 51)*
Howard K. Pelton

NC07_251 *Mitigation of gun blast noise by surface impedance design (38.5, 76.9)*
Mei Song Tong, Weng Cho Chew and Michael J. White

40 VIBRATION AND SHOCK, TRANSMISSION, ISOLATION AND REDUCTION

42 Vibration Surfaces and Structures (Beams, Plates, Shells)

NC07_51 *Comparison of various techniques for computing modal mass (42, 72.2.1)*
Adam Goss, Stephen Hambric and John Fahline

NC07_136 *A general periodic subsystem for SEA (42, 75.2)*
Vincent Cotoni, Bryce Gardner, Phil Shorter and Robin Langley

NC07_209 *Noise reduction study of sandwich plates using the state space method* (42, 75.6)
Changzheng Huang and Steve Nutt

NC07_271 *A Fourier method for the vibration analysis of colinearly coupled beams systems* (42, 75)
Wen L. Li and Hongan Xu

43 Propagation in Structures

NC07_146 *2-D FEA modeling to assess railroad track support modification for reducing wayside ground vibration* (43, 75.3)
James E. Phillips

NC07_331 *Plumbing noise reduction* (43, 51.9)
Chip O'Neil

NC07_247 *The effect of buildings on ground vibration propagation* (43.2, 51)
Blong Xiong, Hal Amick and Michael Gendreau

NC07_187 *Is the CEN-calculation model suitable for North American building structures?* (43.2.2, 76.9)
Heinrich A. Metzen and Neil Thompson Shade

NC07_155 *Source location using an array of ground vibration sensors* (43.2.3, 74.1)
Jeffrey A. Zapfe and Richard H. Lyon

NC07_321 *Measured and predicted vibration responses of layer soil* (43.2.3, 76)
James T. Nelson

46 Vibration Isolation and Attenuators

NC07_125 *Two-stage isolation system for high-frequency vibration attenuation* (46.2, 13.1.6)
Marshall Downing

47 Vibration-Damping Materials and Structures

NC07_168 *Roughness tactile vibration and drone noise caused by driveline* (47, 13.2.1)
Jaehak Woo and Patrick Davis

NC07_190 *Viscoelastic damping for noise control in an armored military vehicle* (47, 13.8)
Roger Glaese, Rolf Baumgartner and Ryan Sievers

- NC07_245** *Carbon nanotube damping for composite aerospace structures: A new paradigm* (47, 42)
Jonghwan Suhr, Gopal P. Mathur and Pulickel M. Ajayan
- NC07_225** *Wave based analysis of distributed vibration absorbers: Experimental validation* (47.1, 72.2)
Marty Johnson and Irene Berry
- NC07_106** *Damping characteristics of honeycomb sandwich panels filled with loose particulate materials* (47.3, 13.1.6)
Salvatore Liguore
- NC07_222** *Passive control of sound transmission through a double panel using heterogeneous (HG) blankets, Part II: HG parametric studies* (47.3, 13.1.6)
Kamal Idrisi, Marty Johnson, James P. Carneal and Mike R. Kidner
- NC07_141** *Vibration damper on engine cover noise control* (47.4, 13.2.2)
Paul N. Liang

49 Effects of Vibration and Mechanical Shock

- NC07_165** *Estimation of upper bounds to stresses induced by sound* (49.2.2, 64.2)
Eric E. Ungar

50 IMISSION: PHYSICAL ASPECTS OF ENVIRONMENTAL NOISE

51 Building Noise Control

- NC07_148** *Analysis and control of automated people mover vibration in buildings* (51, 43)
James E. Phillips
- NC07_228** *Noise reduction in hospitals: A case study* (51, 32.1)
James E. West, Ilene J. Busch-Vishniac, Jeffery Dunn, Mark MacLeod and Ana Johnson
- NC07_118** *Measured vibration response characteristics of building elements subjected to impulsive noise* (51.3, 51.4)
Natalia V. Sizov, Yuriy A. Gurovich and Kenneth J. Plotkin
- NC07_173** *One person's 'entertainment'.....* (51.3, 33)
Michael J. Brown

- NC07_192** *Transmission of low-frequency sound through building structures (51.3, 23.9)*
Z. Yu and K. M. Li
- NC07_268** *Designed silence with Sylomer/Sylodyn - polyurethan - materials (51.4, 35)*
Andreas Stofleth
- NC07_116** *Impact sound transmission through floor/ceiling assemblies in lightweight wood frame construction (51.5, 51)*
Jeanette L. Hesedahl and Daniel C. Bruck
- NC07_144** *Noise control for neonatal ICU for demolition and construction within hospital facilities (51.5, 52.2.4.2)*
Jack B. Evans
- NC07_175** *A study of impact insulation characteristics in one 'adaptive' reuse condominium project (51.5, 51)*
Julie A. Wiebusch and Elizabeth Bogomolov
- NC07_259** *Generator set tones in offices: A tale of two buildings (51.5, 11.5.2)*
Daniel Kato, Steve Seidlitz and Sze Kwan Cheah
- NC07_210** *Proven engineered acoustical plumbing solutions (51.9, 67)*
Chip O'Neil

52 Community Noise Control

- NC07_269** *Sonic contamination in Santo Domingo (52.1, 63.2)*
Ana T. Solano
- NC07_289** *Case study for the assessment and mitigation of community noise for proposed residential units atop a fire station (52.1, 30)*
George Spano, Robert Brennenman and Darshit Joshi
- NC07_214** *Low-frequency source characterization of aircraft noise during landing operations. (52.2, 13.1)*
Bradley M. Dunkin, Anthony A. Atchley and Kathleen K. Hodgdon
- NC07_264** *Land use planning guidelines for new airports in Canada (52.2, 52.9)*
Tom F. Lowrey
- NC07_244** *Feasibility of using a database of noise surveys to validate proposed environmental noise metrics (52.2.1, 66.2)*
Sarah McGuire and Patricia Davies

- NC07_255** *Acquisition and disposal of airport noise land (52.2.1, 08.1)*
Tony Garcia, Dennis E. Roberts, David L. Bennett and Nancy W. Williams
- NC07_184** *Maryland's transition to county-level regulation of community noise (52.3, 8.2)*
George Luz
- NC07_191** *DOT partnerships with local governments to prevent adverse effects from highway noise (52.3, 52.9)*
Mark A. Wyckoff and K. R. Avery
- NC07_193** *Using on-board sound intensity within the concrete pavement surface characteristics program (52.3, 11.7.1)*
Robert O. Rasmussen, Eric P. Mun, Dennis J. Turner, Robert P. Whirledge, Ted. R. Ferragut and Paul D. Wiegand
- NC07_159** *Strategies for reducing grade crossing noise (52.4, 11.9)*
Hugh Saurenmann, Zack Dennis and Christina Jaworski
- NC07_157** *Using ISO 8297 to verify community noise requirements given as limits on sound power levels (52.5, 81.2.1)*
Frank H. Brittain
- NC07_250** *Verifying community noise limits have been satisfied using extrapolation of measured data (52.5, 83)*
Rob Greene and Grant Limberg
- NC07_257** *Demonstrating that community noise limits have been met using modeling (52.5, 76.1.1.4)*
Marlund E. Hale
- NC07_100** *Noise mitigation measures at large-scale construction sites (52.6, 68.7)*
Weixiong Wu and Kevin J. Keller
- NC07_186** *The story of the environmental noise impact assessment in Hungary (52.9, 51)*
Peter Beke
- NC07_230** *Noise management and control in the Caribbean region, the Puerto Rico's perspectives (52.9, 83)*
Jose Alicea-Pou
- NC07_315** *Technical innovations in the delivery of noise management information to community groups (52.9, 68.7)*
David Dubbink

56 Noise Surveys

- NC07_145** *Verifying community noise compliance with direct measurements - What community noise limits mean (56.1, 83)*
Robert A. Putnam
- NC07_164** *Soundscape evaluations in adult intensive care units (56.2, 63)*
Erica Ryherd and Kerstin Persson Waye
- NC07_180** *48-hour patient room noise level survey at regional medical center (56.2, 51.1.3)*
Nathan Bryce Sevenser

60 IMISSION: EFFECTS OF NOISE

63 Psychological Effects

- NC07_278** *Behavior of psychoacoustic measurements with time-varying signals (63, 79)*
Wade R. Bray
- NC07_219** *Evaluation of time-varying loudness for quantifying perception of nonlinearly propagated noise (63.1, 70)*
S. Hales Swift and Kent L. Gee
- NC07_235** *A story of acceptability of user triggered noise in small electroacoustical devices (63.1, 63.2)*
Matthew J. Green, Thomas Burns and Dave Tourtelotte
- NC07_253** *On the use of statistics of a time-varying loudness model to quantify loudness of transient environmental noise (63.1, 66.2)*
Andrew Marshall and Patricia Davies
- NC07_267** *An examination of the influence of roughness on ratings of aircraft noise (63.2, 63.7)*
Shashikant More and Patricia Davies
- NC07_305** *Assessing human response to infrequent blast noise events (63.2, 21.3.4)*
Larry Pater, Edward Nykaza, Kathleen K. Hodgdon, Anthony Atchley, Robert Baumgartner, Pamela Rathbun and George Luz
- NC07_309** *Speech intelligibility improvements of a small performing arts theater using absorptive panels (63.3, 51.1.2)*
Jeffrey C. Van Karsen, Jason T. Dreyer and Mohan D. Rao

NC07_211 *Designing a simulation center to test acoustical criteria for healthcare facilities (63.4, 76.9)*

Andrew Carballeira, Jo Solet, Orfeu Buxton and David Sykes

NC07_220 *Product sound quality and sleep disturbance (63.7, 63.4)*

Gabriella Cerrato Jay, Eric C. Frenz and Eric R. Frenz

NC07_279 *Measurement and sound quality issues concerning low-frequency noise (63.7, 79)*

Wade R. Bray

66 Sociological Effects: Community Reaction to Noise

NC07_151 *A laboratory assessment of noise annoyance due to low-frequency aircraft noise (66.1, 13.1)*

Matthew Nickerson, Kathleen Hodgdon, Thomas Gabrielson and Anthony Atchley

68 Environmental Impact Statements

NC07_206 *Methods to eliminate continuous and variable background noise sources (68.1, 72.1)*

David Parzych

NC07_120 *Construction noise impact assessment for the Atlantic Yards Arena Project (68.3, 52.6)*

Stephen S. Rosen and Benjamin H. Sachwald

NC07_107 *Noise impact assessment for an air tanker loading operations (68.5, 52.2.1)*

Jim Buntin

NC07_150 *The search for more meaningful aircraft noise analysis in support of more effective airport planning (68.5, 82)*

Thomas L. Connor

69 Criteria and Rating of Noise

NC07_246 *Plumbing noise: Pressure levels and human perception in a luxury condominium (69.1, 51.9)*

Derek L. Watry

NC07_203 *Communicating the noise effects of wind farms to stakeholders (69.3, 63.2)*

Christopher J. Bajdek

70 ANALYSIS

70 General

- NC07_205** *Use of correlation between received impulsive noise event times (70, 24)*
Edward T. Nykaza and Nicholas P. Donaldson

71 Instruments for Noise and Vibration Measurements

- NC07_121** *Investigation and study on the measurements of sound power level for business machines using different multi-channel microphone systems (71.1.1, 71.9)*
Akio Takanashi

72 Measurement Techniques

- NC07_154** *Assessing the relative noise contributions from independent time-varying sources (72, 68)*
John C. Freytag and Paul D. Schomer
- NC07_328** *Practical consideration in application of the nearfield acoustic holography for the heavy duty diesel engine (72.2.2, 12.1.5)*
Sanghoon Suh and Gijs Dirk
- NC07_327** *Panel contribution study of a commercial excavator cab using sound intensity measurements (72.3, 13.7)*
Rohit N. Gujarathi, Kunal S. Kolte, Ketan S. Kshirsagar, Tejas Salunke and Mohan D. Rao
- NC07_114** *Factors influencing sound power measurement reproducibility (72.4, 77)*
Jeffrey J. Marque and Osama Ashour
- NC07_298** *Measurement of sound power level using the parallelepiped surface: Investigation of the $\cos(\theta)$ error (72.4, 74)*
Seth E. Bard and Matthew A. Nobile

73 Test Facilities

- NC07_176** *Source design considerations for qualifying hemi-anechoic chamber in compliance with ISO 3745 (73.2, 71.1)*
Douglas Winker, Ankit Chadha and Einar Ristroph
- NC07_177** *Effect of source directionality on deviations from inverse square law in a hemi-anechoic chamber typically used for product noise emission (73.2, 71.1)*

Ankit Chadha, Einar Ristroph and Douglas F. Winker

NC07_178 *Elevated sources under hemispherical arrays for product noise testing in hemi-anechoic chambers (73.2, 72.4)*

Einar G. Ristroph, Ankit Chadha and Douglas F. Winker

NC07_142 *Statistical analysis of the humidity and temperature effects in a large reverberation room (73.3, 51.1)*

Paul N. Liang

NC07_335 *Calibration procedure for phased array measurement in the Virginia Tech anechoic wind tunnel (73.5, 73.1)*

Marcel C. Remillieux, Hugo E. Camargo and Ricardo A. Burdisso

74 Signal Processing

NC07_320 *Artificial neural network based temporal processing of waveforms to detect military impulse noise (74.2, 52.1)*

Brian A. Bucci and Jeffrey S. Vipperman

75 Analytical Methods

NC07_272 *A new energy approach to the analysis of complex and uncertain systems (75.1, 42)*

Francesca Magionesi and Antonio Carcaterra

NC07_196 *Application of the Fast Multipole Method (FMM) for acoustic analysis (75.5, 76)*

Rajendra Gunda and Sandeep M. Vijayakar

NC07_232 *A new indirect formulation to address the non-uniqueness problem in acoustic BEM (75.5, 75)*

Vijaya Kumar Ambarisha, Rajendra Gunda and Sandeep M. Vijayakar

NC07_317 *Narrowband sound power measurement using supersonic intensity in underwater reverberant environments (75.7, 72.3)*

Andrew Barnard, Stephen Hambric, Stephen Conlon and Dean Capone

76 Modeling, Prediction and Simulation

NC07_221 *Passive control of sound transmission through a double panel using heterogeneous (HG) blankets, Part I: Modeling and verification (76, 13.1.6)*

Kamal Idrisi, Marty Johnson and James P. Carneal

NC07_135 *Atmospheric effects on long range sound propagation (76.1.1, 24)*

Robert L. Bronsdon

- NC07_287** *Airborne weaponry noise prediction model (76.1.1, 76.9)*
Bruce Ikelheimer, Micah Downing, Michael James and Sally McNerny
- NC07_124** *Investigating the implementation of pavement effects via OBSI data in the FHWA Traffic Noise Model (FHWA TNM) (76.1.1.1, 11.7.1)*
Judith Rochat, Aaron Hastings and Mark Ferroni
- NC07_316** *Prediction of underwater noise from large cylindrical piles being driven by impact hammers (76.1.1.4, 68.2)*
Mardi C. Hastings

80 REQUIREMENTS

81 Standards

- NC07_127** *A comparison of the acoustic requirements in LEED for schools and ANSI 12.60 (81, 83)*
Ralph T. Muehleisen
- NC07_216** *Recommended standards for the acoustic environment of the newborn ICU (81, 51)*
M.Kathleen Philbin and Robert D. White
- NC07_202** *Determining spatial variation of prominent discrete tones (81.2, 72.1)*
Menachem Rafaelof and Roland Sesselmann

83 State and Local Legislation and Regulations

- NC07_53** *New York City's new and improved construction noise regulation (83, 52.6)*
Erich Thalheimer and Charles Shamoon
- NC07_149** *Symphony towers noise compliance analysis; City of Fort Lauderdale, Florida (83, 68.7)*
Bernard I. Kinney Jr.

84 Other Legislation and Regulations

- NC07_312** *The greening of sound: Recent inclusion of acoustics in sustainable building certification (84, 51)*
Mandy Kachur

85 Ordinances, Including Zoning Requirements

NC07_161 *Noise ordinance design: Mapping by land use (85, 69.5)*
Robert W. Rand, Stephen A. Ambrose and Caroline Segalla