

► Energetic materials and systems

Peer reviewed publications

Oxidation and decomposition chemistry of the n-pentanol esters pentyl nitrite and pentyl nitrate: A detailed kinetic modeling study

H. MINWEGEN, M. PREUSSKER*, J. GLORIAN, B. BASCHUNG, K.A. HEUFER*

Combustion and Flame; Vol. 273, March 2025, 113914; doi.org/10.1016/j.combustflame.2024.113914

R-01/19/01/000/0/00-00/PR-333/2024

Publications

Improving the accuracy of calculated formation enthalpies for energetic salts

E. OTT, J. GLORIAN, D. MATHIEU*

Proceedings of the 47th International Pyrotechnics Society Seminar, Albuquerque, New Mexico, US, July 14-19, 2024

R-01/19/01/000/0/00-00/PU-72/2024

Detailed kinetic modelling of Nitroguanidine decomposition

J. GLORIAN, J. EHRHARDT, B. BASCHUNG

Proceedings of the 53rd International Annual Conference of Fraunhofer ICT, Congress Centre Karlsruhe, DE, June 25-28, 2024

R-01/19/01/000/0/00-00/PU-73/2024

Experimental investigation on nenas decomposition products

J. EHRHARDT, J. GLORIAN, B. BASCHUNG

53rd International ICT-Conference, Karlsruhe, DE, June 25-28, 2024

R-01/21/01/000/0/00-00/PU-135/2024

► Flight techniques for projectiles

Peer reviewed publications

Aeroballistic optimization of long-range guided ammunition

S. BAGY, M. LIBSIG, B. MARTINEZ, B. MASSE

International Journal of Numerical Methods for Heat & Fluid Flow; © Emerald Publishing Limited; 0961-5539;
DOI 10.1108/HFF-09-2022-0553

R-02/19/02/000/0/00-00/PR-23/2024

Identification for feedforward control of wiener systems date

A. UWADUKUNZE, X. BOMBOIS*, M. FORGIONE*, M. ALBISSER

4th IFAC Conference on Modelling, Identification and Control of Nonlinear Systems MICNON: Lyon, FR, September 4-6, 2024; doi: 10.1016/j.ifacol.2024.10.214

R-02/23/02/000/0/00-00/PR-335/2024

Publications

Linear parameter-varying polytopic modeling and control design for fuided projectiles

G.-M. VINCO, O. SENAME*, G. STRUB, S. THEODOULIS*

AIAA Science and Technology Forum and Exposition (SciTech Forum), National Harbor/MD, US, January 23–27, 2023;
Journal of Guidance, Control, and Dynamics, Paper 2023-2498; doi.org/10.2514/1.G007726

R-02/21/04/000/0/00-00/PU-22/2024

Circularly-polarized wideband conformal magneto-electric antenna covering the GNSS bands

A. CAUSSE, L. BERNARD, S. COLLARDEY*, A. SHARAIHA*

EUCAP 2024, Glasgow, UK, 17-22 March 2024

R-02/20/02/000/0/00-00/PU-124/2024

Système embarqué de détection de position en roulis à partir de signaux électromagnétiques

H. COVIC, L. BERNARD, E. PECHEUR

XXIIIèmes Journées Nationales Microondes, Antibes Juan-Les-Pins, FR, 5-7 juin 2024

R-02/20/02/000/0/00-00/PU-125/2024

Comparison of hybrid real and synthetized image sources for training an object detector

N. HUEBER, A. PICHLER

Proc. SPIE 13035, Synthetic Data for Artificial Intelligence and Machine Learning: Tools, Techniques, and Applications II, 1303505 (Presented at SPIE Defense + Commercial Sensing: April 22, 2024); © SPIE 2024;

doi.org/10.1117/12.3014093.687c6409-f668-ee11-a99c-005056914f1c

R-02/23/04/000/0/00-00/PU-151/2024

Characterization of gun barrel movement and vibrations using piezo resistive accelerometers

A. ZEINER, A. BONIFACE, P. SCHWALD, B. MARTINEZ

73rd Meeting of the Aeroballistic Range Association, Bryan/TX, US, 11 - 16 August 2024

R-02/18/02/240/1/00-00/PU-188/2024

Caractérisation par PIV de l'écoulement aérodynamique autour d'un projectile d'artillerie gyrostabilisé évoluant à angle d'incidence élevé en régime subsonique

C. REY, B. DUTSCHKE, C. MUNDT*, D. BIDINO

CFTL 2024 - 18e Congrès Francophone de Techniques Laser, Lyon, FR, 9-13 septembre 2024

R-02/20/01/000/0/00-00/PU-209/2024

Leveraging multi-LEO satellite signals for opportunistic positioning

N. JARDAK, R. ADAM, Q. JAULT

IEEE Access, Vol. 12, January 2024; DOI 10.1109/ACCESS.2024.3456382

R-02/21/02/000/0/00-00/PU-210/2024

Training embedded DNN-based military vehicle detectors for aerial applications with few images using multisource vehicle signatures, data augmentation, and generative AI

A. PICHLER, N. HUEBER

Proc. SPIE 13206, Artificial Intelligence for Security and Defence Applications II, 132060Q (13 November 2024);

© 2024 SPIE; doi.org/10.1117/12.3031777

R-02/23/04/000/0/00-00/PU-246/2024

Automatisierte Methode zur Generierung von bi-modalen Bilddatensätzen zum Training von auf tiefen neuronalen Netzen basierenden Objektdetektoren

A. PICHLER, N. HUEBER

DWT Angewandte Forschung für Verteidigung und Sicherheit in Deutschland, Hotel Maritim, Bonn, DE, 19.-21.03.2024

R-02/23/04/000/0/00-00/PU-247/2024

Method for training deep neural networks in vehicle detection using drone-captured data and background synthesis

A. PICHLER, N. HUEBER

Proc. SPIE 13035, Synthetic Data for Artificial Intelligence and Machine Learning: Tools, Techniques, and Applications II, 130350L (7 June 2024); © SPIE 2024; doi.org/10.1117/12.3013736

© SPIE 2024; doi.org/10.1117/12.3013736

R-02/23/04/000/0/00-00/PU-248/2024

Multi-modal visual target tracking on embedded system

A. BORNE, C. HENNEQUIN, S. CHANGEY, C. CUDEL*, S. BAZEILLE*

7th European Machine Vision Forum, Mulhouse, FR, November 7-8, 2024

R-02/23/04/000/0/00-00/PU-262/2024

Evaluation of generated semi-synthetic signature datasets for training a multiclass object detector

N. HUEBER, A. PICHLER, D. DELMAS

Proceedings Vol. 13206, Artificial Intelligence for Security and Defence Applications II; 132060R;

doi.org/10.1117/12.3031862; Event: Security + Defence, Edinburgh, UK, 16-19 September 2024; © SPIE 2024

R-02/23/04/000/0/00-00/PU-274/2024

Bimodal vision system combining standard camera and dynamic vision sensor for detecting and tracking fast UAVs

A. ZUNDEL, C. DEMONCEAUX*, N. HUEBER, D. SPITTLER, G. STRUB, S. CHANGEY

Proceedings Vol. 13204, Emerging Imaging and Sensing Technologies for Security and Defence IX; 1320402; doi.org/10.1117/12.3031854; Event: Security + Defence, Edinburgh, UK, 16-19 September 2024; © SPIE 2024
R-02/20/02/000/0/00-00/PU-275/2024

Design of optimized cylindrical structural antenna with quasi length insensitivity using CMA

R. NOTTER, S. COLLARDEY*, A. SHARAIHA*, L. BERNARD, P. POULIGUEN*, P. KARMANN*

18th European Conference on Antennas and Propagation (EuCAP), March 2024, Glasgow, UK; doi 10.23919/eucap60739.2024.10501247; ©2024 IEEE

R-02/20/02/000/0/00-00/PU-303/2024

Réseau d'antennes structurelles cylindriques avec quasi insensibilité à la longueur

R. NOTTER, A. SHARAIHA*, L. BERNARD, S. COLLARDEY*, P. POULIGUEN*, P. KARMANN*

XXIIIèmes Journées Nationales Microondes, Antibes Juan-Les-Pins, FR, 5-7 juin 2024

R-02/20/02/000/0/00-00/PU-309/2024

Chirp interference mitigation in GNSS systems using chirp parameter estimation and pulse blanking

N. JARDAK

IEEE Access, Vol. 12, January 2024; doi 10.1109/ACCESS.2024.3509262

R-02/21/02/000/0/00-00/PU-310/2024

Neural networks smart grid based optimisation for expensive functions

A. UWADUKUNZE, X. BOMBOIS*, M. GILSON*, M. ALBISSER

2024 European Control Conference (ECC), Stockholm, SE, June 25-28, 2024; doi.org/10.23919/ECC64448.2024.10590999

R-02/23/02/000/0/00-00/PU-334/2024

Publications

A circuitry solution for fast transformer-coupled LC inversion generators

R. BISCHOFF

EAPPC-BEAMS-EML 2024, Amsterdam, NL, 22-26/09/2024;

R-03/13/09/907/1/00-00/PU-237/2024

Design parameters impact on electrical characteristics of 4H-SiC thyristors with etched junction termination extension

K. KOTRA, S. SCHARNHOLZ, R. HASSDORF, M. ZUVIC, K. HOFFMANN*

ICSCRM 2024: International Conference on silicon carbide and related materials, Raleigh/NC, USA, Sept 29-Oct 4, 2024; Scientific Books of Abstracts, Vol. 8, pp 511-512; © 2024 Trans Tech Publications Ltd, All Rights Reserved

R-03/13/05/000/0/00-00/PU-241/2024

Optimizing control strategies for high-power capacitor chargers with a SiC-based LC-resonant topology

F. HAAG, M. BERARD, F. ALBRECHT, V. BROMMER, O. LIEBFRIED, K.F. HOFFMANN*

10th Euro-Asian Pulsed Power Conference, 25th International Conference on High-Power Particle Beams and 20th International Symposium on Electromagnetic Launch Technology (EAPPC/BEAMS/EML); Amsterdam, NL; 22-26 September 2024; ieeexplore.ieee.org/document/10747925

R-03/19/01/000/0/00-00/PU-306/2024

Investigation of supercapacitors as energy source for compact inductive pulsed-power generators

F. ALBRECHT, M. BERARD, F. HAAG, V. BROMMER, O. LIEBFRIED, K.F. HOFFMANN*

10th Euro-Asian Pulsed Power Conference, 25th International Conference on High-Power Particle Beams and 20th International Symposium on Electromagnetic Launch Technology (EAPPC/BEAMS/EML); Amsterdam, NL; 22-26 September 2024; ieeexplore.ieee.org/document/10747894

R-03/19/01/000/0/00-00/PU-308/2024

Matching physical and electrical measurements (OBIC) to simulation (FEM) on high voltage bipolar diodes

D. PLANSON*, C. SONNEVILLE*, P. BEVILACQUA*, P. BROSELARD, M. LAZAR*, S. SCHARNHOLZ, B. VERGNE, H. MOREL*

International Conference on Silicon Carbide and Related Materials (ICSCRM 2024), Book of Abstracts, Vol. 8, pp 591-592; © 2024 Trans Tech Publications Ltd, All Rights Reserved

R-03/13/05/815/3/00-00/PU-314/2024

Electrical characterization of HV (10 kV) power 4H-SiC bipolar junction transistor

P. BROSELARD, B. FOSSO-SOB*, D. PLANSON*, P. BEVILACQUA*, C. SONNEVILLE*, M. LAZAR*, B. VERGNE, S. SCHARNHOLZ, H. MOREL*

International Conference on Silicon Carbide and Related Materials (ICSCRM 2024), Book of Abstracts, Vol. 8, pp 126-128; © 2024 Trans Tech Publications Ltd, All Rights Reserved

R-03/13/05/815/3/00-00/PU-316/2024

Peer reviewed publications

Pyrometric temperature and emissivity determination from statistic of the broadband spectral ratio

R. SCHMITT

13th CIRP Conference on Photonic Technologies, Fürth, DE, 15-19 September 2024; Procedia CIRP 124 (2024) 768–771; DOI 10.1016/j.procir.2024.08.221

R-05/21/03/000/0/00-00/PR-211/2024

Publications

Laser in-band IR countermeasures and assessment of dazzling effects on FPA sensor arrays

O. MULLER, C. BRUDER, L. MERLAT

Optical Sensing and Detection VIII, edited by Francis Berghmans, Ioanna Zergioti; Proc. of SPIE Vol. 12999, 129991Y; ©2024 SPIE; 0277-786X; doi: 10.1117/12.3016893

R-05/21/04/000/0/00-00/PU-176/2024

► Protection technologies, security, situational awareness

Peer reviewed publications

Multiple-wavelength range-gated active imaging principle integrating spectral information for five-dimensional imaging

A. MATWYSCHUK

Applied Optics, Vol. 63, No. 3 / 20 January 2024; ©2024 Optica Publishing Group under the terms of the Optica Open Access Publishing Agreement; doi.org/10.1364/AO.504902

R-04/19/02/000/0/00-00/PR-4/2024

Very strong levitation force and stability achieved with a large MgB₂ superconductor disc

Y. XING, G. RUSSO*, P. L. RIBANI*, A. MORANDI*, P. BERNSTEIN*, J. ROSSIT, S. LEMONNIER, F. DELORME, J. NOUDEM*

Superconductor Science and Technology, 37 (2024) 02LT01 (7pp); © 2024 IOP Publishing Ltd;
doi: 10.1088/1361-6668/ad1aea

R-04/19/04/000/0/00-00/PR-9/2024

Reduced-scale high explosive tests: Methodology for TNT equivalency determination in free-field

M.-O. STURTZER, S. TRÉLAT*, L. SINNIGER, C. MANO*, J.-F. LEGENDRE

MABS26, 26th International Symposium on Military Aspects of Blast and Shock, Wollongong, AU, 03-08 December 2023

R-04/16/01/000/0/00-00/PR-10/2024

Towards a simplified blast wave prediction model using different types of experimental diagnostics

S. TRÉLAT*, M.-O. STURTZER, L. SINNIGER, C. MANO*, J.-F. LEGENDRE

MABS26, 26th International Symposium on Military Aspects of Blast and Shock, Wollongong, AU, 03-08 December 2023

R-04/16/01/000/0/00-00/PR-14/2024

A two-scale approach to widen a predictive blast propagation model around a hemicylindrical obstacle

R. GAVART*, S. TRÉLAT*, M.-O. STURTZER, N. CHAUMEIX*

Shock Waves (2023) 33:287–297; doi.org/10.1007/s00193-023-01135-4

R-04/16/01/000/0/00-00/PR-15/2024

Myth or fact: Is there a link between wavelength and barrier mitigation factor?

S. TRÉLAT*, M.-O. STURTZER, L. HEUDIER*, J. DAUBECH*

ISSW34, 34th International Symposium on Shock Waves, Daegu, KR, 16-21 July 2023

R-04/16/01/000/0/00-00/PR-17/2024

Editorial single-photon technologies and applications

F. XU*, G. BULLER*, M. LAURENZIS, L. QIAN*, A. TOSI*, A. VELTEN*, J. WANG*

IEEE Journal of Selected Topics in Quantum Electronics, Vol. 30, No. 1, January/February 2024; 1077-260X
© 2024 IEEE; doi: 10.1109/JSTQE.2024.3356128

R-04/19/01/000/0/00-00/PR-18/2024

* not member of ISL

Optimizing sensor placement in urban environments for time difference of arrival shooter localization and event classification

D. IACOB, P. MIKUS*, M. OSPEL, L. STILL*, C. BLONDÉ-WEINMANN, M. OISPUU*

27th International Conference on Information Fusion (IEEE Fusion), Venice, IT, July 7-11, 2024;
doi.org/10.23919/FUSION59988.2024.10706338; WTD-91 E/E91S/NC025/9F103

R-04/18/02/009/9/00-00/PR-53/2024

Optimizing sensor placement in urban environments for time difference of arrival shooter localization and event classification

N. ELSTER, J. BOUTILLIER, N. BOURDET*, P. MAGNAN, P. NAZ, R. WILLINGER*, C. DECK*

Frontiers in Bioengineering and Biotechnology, 12:1297730; doi: 10.3389/fbioe.2024.1297730

R-04/17/01/000/0/00-00/PR-55/2024

Blast protection of vehicle underside through fireball extinction by water

T. SCHUNCK, D. ECKENFELS, L. SINNIGER

International Journal of Impact Engineering 191 (2024) 105009; © 2024 Elsevier Ltd. All rights are reserved, including those for text and data mining, AI training, and similar technologies

R-04/16/04/000/0/00-00/PR-120/2024

Fourier analysis in single photon imaging

M. LAURENZIS, E. BACHER

Optics Express, Vol. 32, No. 15 / 15 July 2024 / 26525; Journal © 2024; doi.org/10.1364/OE.522742

R-04/19/01/000/0/00-00/PR-152/2024

Explosion mitigation by grids in combination with a water curtain

T. SCHUNCK, D. ECKENFELS

Special Issue for the 6th International Conference on Protective Structures. International Journal of Protective Structures 2024, Vol. 0(0) 1–13; doi.org/10.1177/20414196241271454

R-04/16/04/000/0/00-00/PR-166/2024

Spark plasma sintering and mechanical properties of two grades of PEKK presenting different Tere/Iso ratios

A. HEYER, J. ROSSIT, F. MOITRIER, G. GÜTTER, N. MONTMASSON, M. WARY*, F. DELORME, S. LEMONNIER, C. CZARNOTA*, A. BRACQ

Journal Applied Polymer Science, 2024;141:e55386; © 2024 Wiley Periodicals LLC.; doi.org/10.1002/app.55386

R-04/19/04/000/0/00-00/PR-169/2024

Time dilation and time reversal with the multiple-wavelengths range-gated active imaging principle

A. MATWYSCHUK

Journal of the Optical Society of America A, Vol. 41, No. 9, September 2024; ©2024 Optica Publishing Group; doi.org/10.1364/JOSAA.520103

R-04/19/02/000/0/00-00/PR-185/2024

OptoSkin: Novel LIDAR touch sensors for detection of touch and pressure within wave guides

E. BACHER, S. CARTIEL*, J. GARCIA-PUEYO*, J. STOPAR*, A. ZORE*, R. KAMNIK*, I. AULIKA*, A. OGURCOVS*, J. GRUBE*, A. BUNDULIS*, J. BUTIKOVA*, M. KEMERE*, A. MUNOZ*, M. LAURENZIS

IEEE Sensors Journal, Vol. 24, No. 20, 15 October 2024; doi: 10.1109/JSEN.2024.3443615

R-04/19/01/107/3/08-00/PR-215/2024

Convolutional neural network-based prediction of a French modified rhyme test recorded with a body-conduction microphone

T. JOUBAUD, V. ZIMPFER

IWAENC2024, International Workshop on Acoustic Signal Enhancement, Aalborg, DK, 9-12 September 2024;
DOI: 10.1109/IWAENC61483.2024.10694021

R-04/20/01/000/0/00-00/PR-222/2024

Microstructural characteristics of a high-chromium cast iron hard-facing alloy

T. FRAS, B. KOENIG*, P. MEYER*, I. DIOP*

Bulletin of the Polish Academy of Sciences. Technical Sciences; DOI: 10.24425/bpasts.2024.151957

R-04/16/02/000/0/00-00/PR-231/2024

Experimental and numerical investigation on the ricochet of hard-core 7.62

T. FRAS, A. BRACQ, M. SEIDL, G. VINCENT

International Journal of Impact Engineering 192 (2024) 105010; doi.org/10.1016/j.ijimpeng.2024.105010;
© 2024 Elsevier Ltd.

R-04/16/02/000/0/00-00/PR-232/2024

Change in transfer function between air and bone conduction microphones due to mouth opening variation

J. RICHARD, V. ZIMPFER, C. BLONDÉ-WEINMANN, S. ROTH*

Applied Acoustics 228 (2025), 110293; © 2024 Elsevier Ltd. All rights are reserved;
doi.org/10.1016/j.apacoust.2024.110293

R-04/20/01/000/0/00-00/PR-276/2024

Publications

Chapter19: Dynamic behavior of bio-based materials

Y. DEMARTY, M. LEFEBVRE*, D. NOTTA-CUVIER*, N. BAHLOULI*, F. LAURO*

Dynamic Behavior of Materials. Fundamentals, Material Models, and Microstructure Effects. Ed.: M. HOKKA;
ISBN: 978-0-323-99153-7; © 2024 Elsevier Inc. All rights reserved

R-04/19/05/000/0/00-00/PU-5/2024

Advanced night and day active imaging solutions for small autonomous tactical platforms

Y. LUTZ, G. SCHMITT, C. FISCHER

OPTRO 2024, Bordeaux, FR, January 23-25, 2024

R-04/19/01/158/2/00-00/PU-8/2024

Impact thresholds for the reactions of metals

C. LANGE, T. FRITZSCH*, M. SEIDL, R. WÖLBING, D. KRAMER*

Proceedings of 33rd International Symposium on Ballistics, Bruges, BE, 16-20 October 2023;
ISBN: 978-1-7138-8039-4; ©2023 International Ballistics Society

R-04/20/03/000/0/16-00/PU-34/2024

Reaktive Strukturmaterialien. Interdisziplinäre und multiskalige Grundlagenforschung in Experiment und Simulation

C. LANGE, D. KRAMER*, M. SEIDL, R. WÖLBING, L. REICH*

Wehrwissenschaftliche Forschung. Jahresbericht 2022; Ed.: BMVg, Bonn, DE, pp. 60-61, 2023

R-04/20/03/000/0/16-00/PU-35/2024

Reactive structural materials: Interdisciplinary and multiscale fundamental research by experiment and simulation

C. LANGE, D. KRAMER*, M. SEIDL, R. WÖLBING, L. REICH*

Military Scientific Research. Annual Report 2022; Ed.: BMVg, Bonn, DE, pp. 60-61, 2023

R-04/20/03/000/0/16-00/PU-36/2024

First-principles investigation of impact-induced oxidation

C. LANGE, M. SEIDL, R. WÖLBING, D. KRAMER*

Proceedings of 32rd International Symposium on Ballistics, Reno/NV, USA, 09-13 May 2022;

ISBN: 978-1-60595-689-3; ©2022 International Ballistics Society; DOI:10.12783/ballistics22/36155

R-04/20/03/000/0/16-00/PU-37/2024

Bedrohungscharakterisierung reaktiver Strukturmaterialien für die Flugabwehr

M. SEIDL, C. LANGE, F. DENIS, S. ZÜGNER*

DWT-SGW Konferenz - Angewandte Forschung für Verteidigung und Sicherheit in Deutschland, Bonn, DE, 19.-21. März, 2024

R-04/20/03/000/0/16-00/PU-80/2024

Ongoing research on measurement and assessment of the auditory risk of weapon noises

M. WEGER

TA 38 meeting TNO, Den Haag, NL, 21.-22.05.2024 (Not published. Only shared with TA 38 members)

R-04/23/01/232/1/00-00/PU-87/2024

NATO/STO/HFM-285: Speech understanding of english language in native and non-native speakers/listeners in NATO operations with and without hearing deficits

P. NAZ

Séminaire des membres français du panel HFM de l'OTAN, Paris, FR, 14.05.2024, A.I.D. Lab.

R-04/20/01/000/0/00-00/PU-99/2024

Improved protection against blast effects for the dismounted soldier. ISL/APC studies

P. NAZ, P. MAGNAN, J. BOUTILLIER, N. ELSTER

GE/NL TA 38, TNO The Hague, NL, 21-22 May 2024

R-04/17/01/000/0/00-00/PU-107/2024

Experimental and numerical exposure of a skull substitute to blast conditions

N. ELSTER, J. BOUTILLIER, P. MAGNAN, S. DE MEZZO, P. NAZ

Blast and Conflict Injury Conference, London, GB, 11-12/07/2024

R-04/17/01/000/0/00-00/PU-174/2024

Drone intrusion detection using a network of acoustic arrays running a neural network for real-time drone detection, localization and identification

S. HENGY, S. DE MEZZO, M. SANGWA-SIMBA, A. MATWYSCHUK, H. PUJOL*, E. BAVU*

ICSV30, 30th International Congress on Sound and Vibration, Amsterdam, NL, 8-11 July 2024

R-04/18/01/814/3/00-00/PU-179/2024

Evaluation of the effect of respiratory airflow on captured speech quality:

Application to pop filters

T. JOUBAUD, V. ZIMPFER

Inter-Noise, 53rd International Congress & Exposition on Noise Control Engineering, Nantes, FR, 25-29 August 2024

R-04/20/01/000/0/00-00/PU-181/2024

* not member of ISL

Utiliser la lumière pour voir dans les coins

F. CHRISTNACHER, M. LAURENZIS, S. SCHERTZER, E. BACHER

Photoniques 126 (2024) 41–45; doi.org/10.1051/photon/202412641

R-04/19/01/000/0/00-00/PU-182/2024

Comportement du temps observé par rapport au temps réel d'une scène en fonction d'un milieu intermédiaire d'indice de réfraction variable

A. MATWYSCHUK

Optique Normandie, Congrès de la SFO, Rouen, FR, 01-05 juillet 2024

R-04/19/02/000/0/00-00/PU-186/2024

Spectroscopy of pyrophoric metal fragments behind armor effects in closed targets

C. LANGE, H. BORCHERT, F. DENIS, M. SEIDL

17th International Detonation Symposium, Kansas City, US, 4-9 August 2024

R-04/20/03/000/0/16-00/PU-196/2024

Effects of the earplugs and external ear hardness of the direct transmission induced by high-level impulse noises

C. BLONDE-WEINMANN, P. HAMERY, V. ZIMPFER, S. DE MEZZO

Inter-Noise, 53rd International Congress & Exposition on Noise Control Engineering, Nantes, FR, 25-29 August 2024

R-04/23/01/000/0/00-00/PU-206/2024

Pertinence of Finite Element Method for impulse localization in urban environments

C. BLONDE-WEINMANN, P. HAMERY, M. OSPEL, D.-O. IACOB

Inter-Noise, 53rd International Congress & Exposition on Noise Control Engineering, Nantes, FR, 25-29 August 2024

R-04/18/02/009/9/00-00/PU-207/2024

Detecting defects in cantilever beams by modal analysis

D. STAMM, N. ELSTER

Congrès des Jeunes Chercheurs en Mécanique (MECA-J), Online, 28-30 August 2024

R-04/17/01/000/0/00-00/PU-212/2024

Sonic boom comparative study between Mach 4.7 outdoor experimental tests and numerical simulations

G. FASULO*, L. FEDERICO*, F. PETROSINO*, S. GRAZIANI*, N. VIOLA*, S. HENGY, B. MARTINEZ, M. ALBISSER

34th Congress of the International Council of the Aeronautical Sciences (ICAS), Florence, IT, 9-13 September 2024

R-04/18/01/991/3/00-00/PU-218/2024

Sonic boom numerical validation of a Mach 4.7 experimental test

S. GRAZIANI*, N. VIOLA*, R. FUSARO*, S. HENGY, M. ALBISSER, B. MARTINEZ

30th AIAA/CEAS Aeroacoustics Conference, Rome, IT, 4-7 June 2024

R-04/18/01/991/3/00-00/PU-219/2024

Drone intrusion monitoring: A state of the art of acoustic array signal processing for real-time detection, localization and tracking

S. HENGY, T. JOUBAUD, D.-O. IACOB, J. VERNIER, M. SANGWA-SIMBA, S. DE MEZZO

9th Battlefield Acoustics, ISL, Saint-Louis, FR, 24-25 September 2024

R-04/18/01/000/0/00-00/PU-220/2024

Evaluation of the effect of body-conduction audio sensors on speaker verification performance

T. JOUBAUD, J. HAURET*, É. BAVU*, V. ZIMPFER

9th Battlefield Acoustics, ISL, Saint-Louis, FR, 24-25 September 2024

R-04/20/01/000/0/00-00/PU-221/2024

Disruptive Imaging Field Trial (DRIFT) on computational and compressive imaging systems

M. LAURENZIS, T. DU BOSQ*, K. NIELSON*, T. HARAN*, P. PISCAER*, N. BOEHRER*, J. DIJK*, G. PAUNESCU*, P. LUTZMANN*, J. LIMBACH*, J. PIPER*, O.B. ELPHICK*, J. FRANKS*, O. PAVLI*, T. LANG*, S. STRECKER*

Electro-Optical and Infrared Systems: Technology and Applications XXI, edited by D.L. Hickman, H. Bürsing, O. Steinvall, P.J. Soan, Proc. of SPIE, Vol. 13200, 132000B; © 2024 SPIE; 0277-786X; doi: 10.1117/12.3033779

R-04/19/01/000/0/00-00/PU-226/2024

Invited paper

UAV detection: A review of ISL researches over the past ten years

F. CHRISTNACHER, M. LAURENZIS, M. REBERT, A. MATWYSCHUK

Electro-Optical and Infrared Systems: Technology and Applications XXI, edited by D.L. Hickman, H. Bürsing, O. Steinvall, P.J. Soan, Proc. of SPIE, Vol. 13200, 132000B; © 2024 SPIE; 0277-786X; doi: 10.1117/12.3033102

R-04/19/01/000/0/00-00/PU-227/2024

Invited paper

Experimental evaluation of the accuracy of acoustic test fixtures facing high-level impulse noises

C. RUZYLA, V. ZIMPFER, P. HAMERY, H. NELISSE*, O. DOUTRES*, F. SGARD*, C. BLONDE-WEINMANN, S. ROTH*

9th Battlefield Acoustics, ISL, Saint-Louis, FR, 24-25 September 2024

R-04/20/01/000/0/00-00/PU-240/2024

The influence of measurement specifications and digital signal processing on the predicted auditory risk of impulse noise

M. WEGER

9th Workshop on Battlefield Acoustics, ISL, Saint-Louis, FR, 24.09.2024

R-04/23/01/232/1/00-00/PU-256/2024

Impact-induced energy release of reactive structural materials: For air defence

M. SEIDL, CC. LANGE, F. DENIS, S. ZÜGNER

18th Workshop on Pyrotechnic Combustion Mechanisms, Fraunhofer ICT, DE, 24 June 2024

R-04/20/03/000/0/16-00/PU-259/2024

Comparison of earplugs performances facing impulse noise measured on subjects and standard artificial heads

V. ZIMPFER, C. BLONDÉ-WEINMANN, P. HAMERY, C. RUZYLA

ICSV30. 30th International Congress on Sound and Vibration, Amsterdam, NL, 8-11 July 2024

R-04/20/01/000/0/00-00/PU-265/2024

Advanced perception using single photon imaging

M. LAURENZIS, E. BACHER, S. SCHERTZER, J.-M. POYET, A. MATWYSCHUK, Y. LUTZ, F. CHRISTNACHER

Proceedings Vol. 13204, Emerging Imaging and Sensing Technologies for Security and Defence IX; 1320405 (2024); doi.org/10.1117/12.3031466 Event: Security + Defence, 2024, Edinburgh, UK; © SPIE 2024

R-04/19/01/000/0/00-00/PU-277/2024

Invited paper

Time-gated polarization for active non-line-of-sight imaging

O. PUEYO-CIUTAD*, J. MARCO*, S. SCHERTZER, F. CHRISTNACHER, M. LAURENZIS,
D. GUTIERREZ*, A. REDO-SANCHEZ*

SIGGRAPH Asia 2024 Conference, Tokyo, JP, December 03–06, 2024; Association for Computing Machinery, New York, NY, USA, Article 49, 1–11; doi.org/10.1145/3680528.3687575

R-04/19/01/117/3/00-00/PU-279/2024

Sparse optical sampling in the close proximity of a robotic arm

M. LAURENZIS, A. MARIC*, E. BACHER, M. PIETRZAK, S. SCHERTZER, F. GRELLA*,
S. CALINON*

European Robotics Forum 2024, Rimini, IT, 13-15 March 2024; doi.org/10.1007/978-3-031-76428-8_38

R-04/19/01/107/3/08-00/PU-337/2024

Development of dummies for experimental investigation of blast effects on dismounted soldiers

N. ELSTER, J. BOUTILLIER, P. MAGNAN, P. NAZ, B. FISCHER

DWT Tagung - Angewandte Forschung für Verteidigung und Sicherheit in Deutschland, Bonn, DE, 19-21 March 2024

R-04/17/01/000/0/00-00/PU-338/2024