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Institute of Physics
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Publications

Article

Hybrid Bispectrum–Waterfall Feature Extraction with CS-DSB for RF Receiver
N.Y. Gasparyan, A.A. Hakhumian, E.R. Sivolenko

Armenian Journal of Physics 2025 43-47

Article

Detection of Phase Coupling in Radio Frequency Signals Using Bispectral Analysis
Babken Hovhannisyan, Eduard Sivolenko, Andrey Rashich, Alex Mkoyan, Vanand Mkhoyan,

Anna Vardanyan

International Conference on Electrical Engineering and Photonics, EExPolytech 2025 207-209

https://ieeexplore.ieee.org/document/11252262

Article

Bispectrum-Based Signal Processing Using Waterfall Features
Eduard Sivolenko, Mane Harutyunyan, Sergey Makarov, Naira Gasparyan, Hayk Martirosyan,

Arsen Hakhoumian

International Conference on Electrical Engineering and Photonics, EExPolytech 2025 175-177

Article

Transmitter and Receiver Architecture for Human Presence and Movement Detection
Eduard Sivolenko, Aram Antonyan, Naira Gasparyan, Sergey Makarov, Hayk Martirosyan

International Conference on Electrical Engineering and Photonics, EExPolytech 2025 181-183

https://ieeexplore.ieee.org/document/11252393

Article

Experimental Verification of Brain-Origin RadioFrequency Emissions in an RF-Isolated Environment
Babken Hovhannisyan, Eduard Sivolenko, Andrey Rashich, Alex Mkoyan, Vanand Mkhoyan,

Anna Vardanyan

International Conference on Electrical Engineering and Photonics, EExPolytech 2025 210-212

https://ieeexplore.ieee.org/document/11251972

Article

Autocorrelation-Driven TX/RX Synchronization and Fingerprinting of Unknown Transmitters Using Zadoff-Chu Sequences
Eduard Sivolenko

International Conference on Electrical Engineering and Photonics, EExPolytech 2025 178-180

https://ieeexplore.ieee.org/document/11253773

Article

Adaptive Transformation Algorithm for Detecting Parameters of a Sinusoidal Signal
E.R. Sivolenko, N.Y. Gasparyan, A.K. Aharonyan, L.A. Mkhitaryan, M.A. Karapetyan

Armenian Journal of Physics 2025 59-63

https://arar.sci.am/dlibra/publication/459698

Article

Techniques for Locating GPS Jammers using GNU Radio
B. Hovhannisyan, M. Sahakyan, V. Mkhoyan, E. Sivolenko, A. Aharonyan, S. Makarov

Communications of the Byurakan Astrophysical Observatory 2024 409-411

Article

Analysis of Harmonic Signals in Non-Real Time of Moving Targets in Complex Environments Using Higher-Order Statistics in LabVIEW [Анализ гармонических сигналов в нереальном времени движущихся целей в сложных средах с использованием статистики более выс...
A. Hakhoumian, M. Barseghyan, N. Gasparyan, B. Hovhannisyan, E. Sivolenkoa

Proceedings of NAS RA Physics 2024 408–412

Article

Statistical analysis of the electroencephalographic signals
Babken Hovhannisyan, Tigran Hovhannisyan, Armen Makaryan, Eduard Sivolenko, Vanand Mkhoyan

IET conference proceedings. 2024 23-25

Article

Combining Bispectral Analysis with the Levenberg–Marquardt Algorithm for Enhanced Non-linear Signal Processing in Astronomy
E. Sivolenko, N. Gasparyan, A. Aharonyan, V. Avetisyan, M. Vinnichenko

Communications of the Byurakan Astrophysical Observatory 2024 402-408

Article

More accurate and effective monitoring of moving targets in complex environments using “spectral mask” for harmonic signatures using higher-ordered statistics
Eduard Sivolenko, Arsen Hakhoumian, Naira Gasparyan, Mane Barseghyan, Hakob Babayan

IET conference proceedings. 2024 49-52

Article

SC-DSB signal as a probe signal for testing nonlinearity in electronic circuits
Naira Gasparyan, Arsen Hakhoumian, Eduard Sivolenko, Mane Barseghyan

IET conference proceedings. 2024 75-78

Article

Registration of Brain Radio Signals and Their Bispectral Analysis
B. A. Hovhannisyan, H.L. Ayvazyan, S.V. Antonyan, A. H. Makaryan, E. R. Sivolenko, G. A. Tsaturyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2022 87-90

Article

Extracting Human Brain Signals from the EEG Records Using LabVIEW and Advanced Signal Processing
Babken Hovhannisyan, Eduard Sivolenko, Armen Makaryan, Hamlet Ayvazyan, Andrei Medvedev,

Valentina Temkina

Springer proceedings in physics 2022 183-190

Article

РЕГИСТРАЦИЯ РАДИОСИГНАЛОВ МОЗГА И ИХ БИСПЕКТРАЛЬНЫЙ АНАЛИЗ

Г.Л. АЙВАЗЯН, С.В. АНТОНЯН, А.О. МАКАРЯН, Б.А. ОГАНЕСЯН, Э.Р. СИВОЛЕНКО, Г.А. ЦАТУРЯН

Proceedings of NAS RA Physics 2022 125-130

Conference

AM signal finding in the environment full of micro doppler shifts using bispectral analysis.

Babken Hovhannisyan, Sivolenko Eduard, Andrey Medvedev

2019 117-119

https://ieeexplore.ieee.org/xpl/conhome/8897535/proceeding?isnumber=8906787&sor...