

# Deniz Erdogmus

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2928635/publications.pdf>

Version: 2024-02-01

112  
papers

2,825  
citations

361045

20  
h-index

205818

48  
g-index

114  
all docs

114  
docs citations

114  
times ranked

2711  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Automated Diagnosis of Plus Disease in Retinopathy of Prematurity Using Deep Convolutional Neural Networks. JAMA Ophthalmology, 2018, 136, 803.  | 1.4  | 442       |
| 2  | The Future of Human-in-the-Loop Cyber-Physical Systems. Computer, 2013, 46, 36-45.   | 1.2  | 265       |
| 3  | Noninvasive Brain-Computer Interfaces for Augmentative and Alternative Communication. IEEE Reviews in Biomedical Engineering, 2014, 7, 31-49.  | 13.1 | 133       |
| 4  | Feature extraction using information-theoretic learning. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2006, 28, 1385-1392.  | 9.7  | 127       |
| 5  | Asymmetric Loss Functions and Deep Densely-Connected Networks for Highly-Imbalanced Medical Image Segmentation: Application to Multiple Sclerosis Lesion Detection. IEEE Access, 2019, 7, 1721-1735. | 2.6  | 120       |
| 6  | Evaluation of a deep learning image assessment system for detecting severe retinopathy of prematurity. British Journal of Ophthalmology, 2019, 103, 580-584.   | 2.1  | 114       |
| 7  | RSVP keyboard: An EEG based typing interface. , 2012, , .  |      | 87        |
| 8  | Monitoring Disease Progression With a Quantitative Severity Scale for Retinopathy of Prematurity Using Deep Learning. JAMA Ophthalmology, 2019, 137, 1022.   | 1.4  | 81        |
| 9  | Principal Curves as Skeletons of Tubular Objects. Neuroinformatics, 2011, 9, 181-191.  | 1.5  | 77        |
| 10 | Siamese neural networks for continuous disease severity evaluation and change detection in medical imaging. Npj Digital Medicine, 2020, 3, 48.   | 5.7  | 70        |
| 11 | A framework for rapid visual image search using single-trial brain evoked responses. Neurocomputing, 2011, 74, 2041-2051.  | 3.5  | 69        |
| 12 | Brain-Computer Interface With Language Model-Electroencephalography Fusion for Locked-In Syndrome. Neurorehabilitation and Neural Repair, 2014, 28, 387-394.   | 1.4  | 69        |
| 13 | Plus Disease in Retinopathy of Prematurity. Ophthalmology, 2016, 123, 2338-2344.   | 2.5  | 68        |
| 14 | Predicting aggression to others in youth with autism using a wearable biosensor. Autism Research, 2019, 12, 1286-1296.   | 2.1  | 64        |
| 15 | A Quantitative Severity Scale for Retinopathy of Prematurity Using Deep Learning to Monitor Disease Regression After Treatment. JAMA Ophthalmology, 2019, 137, 1029.                                 | 1.4  | 63        |
| 16 | Adversarial Deep Learning in EEG Biometrics. IEEE Signal Processing Letters, 2019, 26, 710-714.  | 2.1  | 63        |
| 17 | Plus Disease in Retinopathy of Prematurity. Ophthalmology, 2016, 123, 2345-2351.   | 2.5  | 62        |
| 18 | Learning Invariant Representations From EEG via Adversarial Inference. IEEE Access, 2020, 8, 27074-27085.  | 2.6  | 54        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Real-time automatic fetal brain extraction in fetal MRI by deep learning. , 2018, , .  |     | 50        |
| 20 | FlashType&lt;inline-formula&gt; &lt;tex-math notation="LaTeX"&gt; \$\^{\text{TM}}\$&lt;/tex-math&gt; &lt;/inline-formula&gt;: A Context-Aware c-VEP-Based BCI Typing Interface Using EEG Signals. IEEE Journal on Selected Topics in Signal Processing, 2016, 10, 932-941. | 7.3 | 34        |
| 21 | Language-Model Assisted Brain Computer Interface for Typing: A Comparison of Matrix and Rapid Serial Visual Presentation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2015, 23, 910-920.   | 2.7 | 31        |
| 22 | Transfer Learning in Brain-Computer Interfaces with Adversarial Variational Autoencoders. , 2019, , .  |     | 26        |
| 23 | Comparing supervised and unsupervised approaches to emotion categorization in the human brain, body, and subjective experience. Scientific Reports, 2020, 10, 20284.   | 1.6 | 25        |
| 24 | Rapid image analysis using neural signals. , 2008, , .   |     | 24        |
| 25 | EEG-GNN: Graph Neural Networks for Classification of Electroencephalogram (EEG) Signals. , 2021, 2021, 1061-1067.  |     | 24        |
| 26 | Continuous Assessment of Gait Velocity in Parkinson's Disease from Unobtrusive Measurements. , 2007, , .   |     | 20        |
| 27 | Decoding of multichannel EEG activity from the visual cortex in response to pseudorandom binary sequences of visual stimuli. International Journal of Imaging Systems and Technology, 2011, 21, 139-147.   | 2.7 | 20        |
| 28 | Self-Consistent Locally Defined Principal Surfaces. , 2007, , .  |     | 19        |
| 29 | A Bayesian Framework for Intent Detection and Stimulation Selection in SSVEP BCIs. IEEE Signal Processing Letters, 2015, 22, 743-747.  | 2.1 | 19        |
| 30 | Classification Active Learning Based on Mutual Information. Entropy, 2016, 18, 51.   | 1.1 | 19        |
| 31 | Recursive Bayesian Coding for BCIs. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 704-714.   | 2.7 | 19        |
| 32 | Predicting Imminent Aggression Onset in Minimally-Verbal Youth with Autism Spectrum Disorder Using Preceding Physiological Signals. , 2018, 2018, 201-207.   |     | 18        |
| 33 | Classification and comparison via neural networks. Neural Networks, 2019, 118, 65-80.  | 3.3 | 18        |
| 34 | Single-Examination Risk Prediction of Severe Retinopathy of Prematurity. Pediatrics, 2021, 148, .  | 1.0 | 18        |
| 35 | HANDS: a multimodal dataset for modeling toward human grasp intent inference in prosthetic hands. Intelligent Service Robotics, 2020, 13, 179-185.   | 1.6 | 16        |
| 36 | Disentangled Adversarial Autoencoder for Subject-Invariant Physiological Feature Extraction. IEEE Signal Processing Letters, 2020, 27, 1565-1569.  | 2.1 | 16        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 37 | A Probabilistic Active Learning Algorithm Based on Fisher Information Ratio. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 2023-2029.  | 9.7 | 15        |
| 38 | Effects of simulated visual acuity and ocular motility impairments on SSVEP brain-computer interface performance: an experiment with Shuffle Speller. Brain-Computer Interfaces, 2018, 5, 58-72.   | 0.9 | 15        |
| 39 | SSVEP BCI and Eye Tracking Use by Individuals With Late-Stage ALS and Visual Impairments. Frontiers in Human Neuroscience, 2020, 14, 595890.   | 1.0 | 15        |
| 40 | A Robust Fusion Algorithm for Sensor Failure. IEEE Signal Processing Letters, 2013, 20, 755-758.   | 2.1 | 14        |
| 41 | Piecewise linear cylinder models for 3-dimensional axon segmentation in Brainbow imagery. , 2010, , .  |     | 13        |
| 42 | Effects of Catalytic Action and Ligand Binding on Conformational Ensembles of Adenylate Kinase. Biochemistry, 2017, 56, 4559-4567.   | 1.2 | 13        |
| 43 | Model-Based Deep Autoencoder Networks for Nonlinear Hyperspectral Unmixing. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.   | 1.4 | 13        |
| 44 | Stochastic mutual information gradient estimation for dimensionality reduction networks. Information Sciences, 2021, 570, 298-305.   | 4.0 | 13        |
| 45 | Probabilistic simulation framework for EEG-based BCI design. Brain-Computer Interfaces, 2016, 3, 171-185.  | 0.9 | 12        |
| 46 | An Active RBSE Framework to Generate Optimal Stimulus Sequences in a BCI for Spelling. IEEE Transactions on Signal Processing, 2017, 65, 5381-5392.  | 3.2 | 12        |
| 47 | Information Theoretic Feature Transformation Learning for Brain Interfaces. IEEE Transactions on Biomedical Engineering, 2020, 67, 69-78.  | 2.5 | 12        |
| 48 | The Laplacian Classifier. IEEE Transactions on Signal Processing, 2007, 55, 3262-3271.   | 3.2 | 11        |
| 49 | Subject-specific abnormal region detection in traumatic brain injury using sparse model selection on high dimensional diffusion data. Medical Image Analysis, 2017, 37, 56-65.   | 7.0 | 11        |
| 50 | Constrained Maximum Likelihood Estimation of Relative Abundances of Protein Conformation in a Heterogeneous Mixture From Small Angle X-Ray Scattering Intensity Measurements. IEEE Transactions on Signal Processing, 2015, 63, 5383-5394. | 3.2 | 10        |
| 51 | Muscle Synergy-based Grasp Classification for Robotic Hand Prosthetics. , 2017, 2017, 335-338.   |     | 10        |
| 52 | Transfer learning using low-dimensional subspaces for EMG-based classification of hand posture. , 2019, 2019, 1097-1100.   |     | 9         |
| 53 | Universal Physiological Representation Learning With Soft-Disentangled Rateless Autoencoders. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 2928-2937.  | 3.9 | 9         |
| 54 | Signal denoising using principal curves: Application to timewarping. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .   | 1.8 | 8         |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 55 | Time-Series Prediction of Proximal Aggression Onset in Minimally-Verbal Youth with Autism Spectrum Disorder Using Physiological Biosignals. , 2018, 2018, 5745-5748.     |     | 8         |
| 56 | EEG-based trial-by-trial texture classification during active touch. Scientific Reports, 2020, 10, 20755.  | 1.6 | 8         |
| 57 | A Fusion Approach for Image Triage using Single Trial ERP Detection. , 2007, , .   |     | 7         |
| 58 | Stimuli with opponent colors and higher bit rate enable higher accuracy for C-VEP BCI. , 2015, , .   |     | 7         |
| 59 | On Analysis of Active Querying for Recursive State Estimation. IEEE Signal Processing Letters, 2018, 25, 743-747.  | 2.1 | 7         |
| 60 | Code-VEP vs. Eye Tracking: A Comparison Study. Brain Sciences, 2018, 8, 130.   | 1.1 | 7         |
| 61 | Optimal Query Selection Using Multi-Armed Bandits. IEEE Signal Processing Letters, 2018, 25, 1870-1874.  | 2.1 | 7         |
| 62 | From hand-perspective visual information to grasp type probabilities. , 2019, , .  |     | 6         |
| 63 | Biosensor prediction of aggression in youth with autism using kernel-based methods. , 2020, , .  |     | 6         |
| 64 | A comparison of temporal windowing schemes for single-trial ERP detection. , 2009, , .   |     | 5         |
| 65 | Principal Curve Time Warping. IEEE Transactions on Signal Processing, 2009, 57, 2041-2049.   | 3.2 | 5         |
| 66 | Manifold learning by preserving distance orders. Pattern Recognition Letters, 2014, 38, 120-131.   | 2.6 | 5         |
| 67 | An experimental and computational framework for modeling multi-muscle responses to transcranial magnetic stimulation of the human motor cortex. , 2019, 2019, 1122-1125. |     | 5         |
| 68 | An Event-Driven AR-Process Model for EEG-Based BCIs With Rapid Trial Sequences. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 798-804.   | 2.7 | 5         |
| 69 | AutoBayes: Automated Bayesian Graph Exploration for Nuisance- Robust Inference. IEEE Access, 2021, 9, 39955-39972.   | 2.6 | 5         |
| 70 | On the use of generative deep neural networks to synthesize artificial multichannel EEG signals. , 2021, , .   |     | 5         |
| 71 | Classifications of Dynamic EMG in Hand Gesture and Unsupervised Grasp Motion Segmentation. , 2021, 2021, 359-364.  |     | 5         |
| 72 | A Nonparametric Approach for Active Contours. Neural Networks (IJCNN), International Joint Conference on, 2007, , .  | 0.0 | 4         |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 73 | Towards End-to-End Control of a Robot Prosthetic Hand via Reinforcement Learning. , 2020, , .  |     | 4         |
| 74 | Synergistic Activation Patterns of Hand Muscles in Left-and Right-Hand Dominant Individuals. Journal of Human Kinetics, 2021, 76, 89-100.  | 0.7 | 4         |
| 75 | EEG-based texture roughness classification in active tactile exploration with invariant representation learning networks. Biomedical Signal Processing and Control, 2021, 67, 102507.                    | 3.5 | 4         |
| 76 | Motor cortex mapping using active gaussian processes. , 2020, 2020, .  |     | 4         |
| 77 | Geometric structure of sum-of-rank-1 decompositions for n-dimensional order-p symmetric tensors. , 2008, , .   |     | 3         |
| 78 | Hierarchical Graphical Models for Context-Aware Hybrid Brain-Machine Interfaces. , 2018, 2018, 1964-1967.  |     | 3         |
| 79 | Disentangled Adversarial Transfer Learning for Physiological Biosignals. , 2020, 2020, 422-425.  |     | 3         |
| 80 | Automatic Brain Image Segmentation for Evaluation of Experimental Ischemic Stroke Using Gradient vector flow and kernel annealing. Neural Networks (IJCNN), International Joint Conference on, 2007, , . | 0.0 | 2         |
| 81 | Detecting EEG evoked responses for target image search with mixed effect models. , 2008, 2008, 4988-91.  |     | 2         |
| 82 | Computationally Efficient Exact Calculation of Kernel Density Derivatives. Journal of Signal Processing Systems, 2015, 81, 321-332.  | 1.4 | 2         |
| 83 | Information theoretic feature projection for single-trial brain-computer interfaces. , 2017, 2017, .   |     | 2         |
| 84 | A Parametric EEG Signal Model for BCIs with Rapid-Trial Sequences. , 2018, 2018, 118-122.  |     | 2         |
| 85 | Change Detection and Gaussian Process Inference in Piecewise Stationary Environments Under Noisy Inputs. , 2019, , .   |     | 2         |
| 86 | Robust Fusion of c-VEP and Gaze. , 2019, 3, 1-4.   |     | 2         |
| 87 | NetCut: Real-Time DNN Inference Using Layer Removal. , 2021, , .   |     | 2         |
| 88 | Efficient TMS-Based Motor Cortex Mapping Using Gaussian Process Active Learning. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1679-1689.                                | 2.7 | 2         |
| 89 | Target-Related Alpha Attenuation in a Brain-Computer Interface Rapid Serial Visual Presentation Calibration. Frontiers in Human Neuroscience, 2022, 16, 882557.  | 1.0 | 2         |
| 90 | Detecting mild cognitive loss with continuous monitoring of medication adherence. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .                | 1.8 | 1         |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 91  | Neural correlates of visual perception in rapid serial visual presentation paradigms. , 2012, , .  |     | 1         |
| 92  | Constrained spectral clustering for image segmentation. , 2012, 2013, 1-6.   |     | 1         |
| 93  | A SIFT-point distribution-based method for head pose estimation. , 2012, , .   |     | 1         |
| 94  | Initial assessment of artifact filtering for RSVP Keyboard&#x2122;. , 2013, , .  |     | 1         |
| 95  | Utilization of temporal trial dependency in ERP based BCIs. , 2014, , .  |     | 1         |
| 96  | Minor Surfaces are Boundaries of Mode-Based Clusters. IEEE Signal Processing Letters, 2015, 22, 891-895.                                       | 2.1 | 1         |
| 97  | A framework to optimize protein structure from solution scattering using ADMM and an elastic subdomain network. , 2016, , .                    |     | 1         |
| 98  | Dirichlet Priors for MAP Inference of Protein Conformation Abundances from SAXS. Journal of Signal Processing Systems, 2018, 90, 167-174.      | 1.4 | 1         |
| 99  | A History-based Stopping Criterion in Recursive Bayesian State Estimation. , 2019, , .   |     | 1         |
| 100 | An active recursive state estimation framework for brain-interfaced typing systems. Brain-Computer Interfaces, 2019, 6, 149-161.               | 0.9 | 1         |
| 101 | Geometric Analysis of Uncertainty Sampling for Dense Neural Network Layer. IEEE Signal Processing Letters, 2021, 28, 867-871.                  | 2.1 | 1         |
| 102 | Sample complexity of rank regression using pairwise comparisons. Pattern Recognition, 2022, 130, 108688.                                       | 5.1 | 1         |
| 103 | Inference of Upcoming Human Grasp Using EMG During Reach-to-Grasp Movement. Frontiers in Neuroscience, 2022, 16, .                             | 1.4 | 1         |
| 104 | A Novel Switching Scheme Between Adaptive Information Algorithms. Neural Networks (IJCNN), International Joint Conference on, 2007, , .        | 0.0 | 0         |
| 105 | Adaptive motion estimation schemes using maximum mutual information criterion. Wireless Communications and Mobile Computing, 2007, 7, 205-215. | 0.8 | 0         |
| 106 | Nonnegative non-redundant tensor decomposition. Frontiers of Mathematics in China, 2013, 8, 41-61.   | 0.4 | 0         |
| 107 | Target tracking via recursive Bayesian state estimation in radar networks. , 2017, , .   |     | 0         |
| 108 | Human-in-the-Loop Prosthetic Robot Hand Control Using Particle Filters for Grasp Selection. , 2019, , .  |     | 0         |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 109 | Dynamic System Identification For Guidance Of Stimulation Parameters In Haptic Simulation Environments. , 2019, , .  |     | 0         |
| 110 | Optimal modality selection using information transfer rate for event related potential driven brain computer interfaces. , 2020, , .   |     | 0         |
| 111 | Active recursive Bayesian inference using RÃ©nyi information measures. Pattern Recognition Letters, 2022, 154, 90-98.  | 2.6 | 0         |
| 112 | Boosting Linear Logistic Regression for Single Trial ERP Detection in Rapid Serial Visual Presentation Tasks. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , . | 0.5 | 0         |