

# CITATION REPORT

List of articles citing

**The need for uncertainty quantification in machine-assisted medical decision making**

**DOI: 10.1038/s42256-018-0004-1**  
**Nature Machine Intelligence, 2019, 1, 20-23.**

**Source:** <https://exaly.com/paper-pdf/74657779/citation-report.pdf>

**Version:** 2024-04-23

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

| #   | Paper   | IF   | Citations |
|-----|---|------|-----------|
| 152 | A Bayesian graph convolutional network for reliable prediction of molecular properties with uncertainty quantification. <b>2019</b> , 10, 8438-8446 |      | 42        |
| 151 | Some germinal roots of AI and their impact on Computer Assisted Radiology and Surgery (CARS). <b>2019</b> , 14, 1619-1625                           |      | 0         |
| 150 | AI Meets Exascale Computing: Advancing Cancer Research With Large-Scale High Performance Computing. <b>2019</b> , 9, 984                            |      | 10        |
| 149 | Responsible AI: requirements and challenges. <b>2019</b> , 1,   |      | 13        |
| 148 | The : avoiding blurry pictures and providing greater insights. <b>2019</b> , 2, 65  |      | 7         |
| 147 | Back to the roots of AI and their relevance for health care today. <b>2019</b> , 28, 65-68  |      |           |
| 146 | Accurate Hit Estimation for Iterative Screening Using Venn-ABERS Predictors. <b>2019</b> , 59, 1230-1237  |      | 5         |
| 145 | Mind and machine in drug design. <i>Nature Machine Intelligence</i> , <b>2019</b> , 1, 128-130  | 22.5 | 30        |
| 144 | Artificial intelligence's essential role in the process of drug discovery. <b>2019</b> , 1, FDD21   |      | 3         |
| 143 | Deep learning-based cardiovascular image diagnosis: A promising challenge. <b>2020</b> , 110, 802-811   |      | 50        |
| 142 | Urban flow prediction from spatiotemporal data using machine learning: A survey. <b>2020</b> , 59, 1-12   |      | 55        |
| 141 | Uncertainty propagation in a multiscale CALPHAD-reinforced elastochemical phase-field model. <b>2020</b> , 183, 452-470                             |      | 13        |
| 140 | Trustworthy artificial intelligence. <b>2020</b> , 31, 447  |      | 52        |
| 139 | Deep Sequential Feature Learning in Clinical Image Classification of Infectious Keratitis. <b>2020</b> , 7, 1002-1002                               |      | 10        |
| 138 | Towards Knowledge Uncertainty Estimation for Open Set Recognition. <b>2020</b> , 2, 505-532   |      | 1         |
| 137 | Uncertainty Estimation in Deep Neural Networks for Dermoscopic Image Classification. <b>2020</b> ,  |      | 10        |
| 136 | Machine Learning Against Terrorism: How Big Data Collection and Analysis Influences the Privacy-Security Dilemma. <b>2020</b> , 26, 2975-2984       |      | 6         |

|     |   |    |
|-----|---|----|
| 135 | There Is Hope After All: Quantifying Opinion and Trustworthiness in Neural Networks. <b>2020</b> , 3, 54  | 13 |
| 134 | Identifying Ethical Considerations for Machine Learning Healthcare Applications. <b>2020</b> , 20, 7-17   | 60 |
| 133 | Integrated Uncertainty in Knowledge Modelling and Decision Making. <b>2020</b> ,  |    |
| 132 | A machine learning Automated Recommendation Tool for synthetic biology. <b>2020</b> , 11, 4879  | 53 |
| 131 | Environmental Adaptation and Differential Replication in Machine Learning. <b>2020</b> , 22,  | 2  |
| 130 | Interpretable multimodal deep learning for real-time pan-tissue pan-disease pathology search on social media. <b>2020</b> , 33, 2169-2185                 | 14 |
| 129 | Demystifying Brain Tumor Segmentation Networks: Interpretability and Uncertainty Analysis. <b>2020</b> , 14, 6  | 20 |
| 128 | Improved Accuracy in Optical Diagnosis of Colorectal Polyps Using Convolutional Neural Networks with Visual Explanations. <b>2020</b> , 158, 2169-2179.e8 | 39 |
| 127 | Augmented decision-making for acral lentiginous melanoma detection using deep convolutional neural networks. <b>2020</b> , 34, 1842-1850                  | 15 |
| 126 | Beyond K-complex binary scoring during sleep: probabilistic classification using deep learning. <b>2020</b> , 43,   | 10 |
| 125 | Secure and Robust Machine Learning for Healthcare: A Survey. <b>2021</b> , 14, 156-180  | 64 |
| 124 | Uncertainty modelling in deep learning for safer neuroimage enhancement: Demonstration in diffusion MRI. <b>2021</b> , 225, 117366                        | 21 |
| 123 | Uncertainty quantification in drug design. <b>2021</b> , 26, 474-489  | 10 |
| 122 | Machine learning for metabolic engineering: A review. <b>2021</b> , 63, 34-60   | 41 |
| 121 | Uncertainty quantification in game theory. <b>2021</b> , 143, 110558  | 2  |
| 120 | Threshold switching memristor-based stochastic neurons for probabilistic computing. <b>2021</b> , 8, 619-629  | 24 |
| 119 | Risk of estimators for Sobol's sensitivity indices based on metamodels. <b>2021</b> , 15,   | 0  |
| 118 | Uncertainty quantification in classical molecular dynamics. <b>2021</b> , 379, 20200082   | 15 |

|     |  |     |
|-----|--|-----|
| 117 | Artificial Intelligence in Cancer Research and Precision Medicine. <b>2021</b> , 11, 900-915   | 26  |
| 116 | User Trust in Assisted Decision-Making Using Miniaturized Near-Infrared Spectroscopy. <b>2021</b> ,  | 0   |
| 115 | A generalized deep learning framework for whole-slide image segmentation and analysis. <b>2021</b> , 11, 11579   | 15  |
| 114 | A survey on deep learning methods for power load and renewable energy forecasting in smart microgrids. <b>2021</b> , 144, 110992   | 59  |
| 113 | Machine Learning in Chemical Engineering: Strengths, Weaknesses, Opportunities, and Threats. <b>2021</b> , 7, 1201-1201  | 15  |
| 112 | Probabilistic Random Forest improves bioactivity predictions close to the classification threshold by taking into account experimental uncertainty. <b>2021</b> , 13, 62 | 0   |
| 111 | Artificial intelligence in cancer research, diagnosis and therapy. <b>2021</b> , 21, 747-752   | 11  |
| 110 | A comparative study of kernel-based vector machines with probabilistic outputs for medical diagnosis. <b>2021</b> , 41, 1486-1486  | 1   |
| 109 | Building robust pathology image analyses with uncertainty quantification. <b>2021</b> , 208, 106291  | 1   |
| 108 | ESVM-SWRF: Ensemble SVM-based sample weighted random forests for liver disease classification. <b>2021</b> , e3525   | 0   |
| 107 | Dilated densely connected U-Net with uncertainty focus loss for 3D ABUS mass segmentation. <b>2021</b> , 209, 106313   | 5   |
| 106 | A hybrid framework for improving uncertainty quantification in deep learning-based QSAR regression modeling. <b>2021</b> , 13, 69  | 0   |
| 105 | Artificial Intelligence in PET: An Industry Perspective. <b>2021</b> , 16, 483-492   | 0   |
| 104 | A review of uncertainty quantification in deep learning: Techniques, applications and challenges. <b>2021</b> , 76, 243-297  | 174 |
| 103 | Uncertainty bounds for multivariate machine learning predictions on high-strain brittle fracture. <b>2022</b> , 201, 110883  | 0   |
| 102 | Tailored Bayes: a risk modeling framework under unequal misclassification costs. <b>2021</b> ,   | 0   |
| 101 | Uncertainty Quantification and Estimation in Medical Image Classification. <b>2021</b> , 671-683   | 0   |
| 100 | Interpretable multimodal deep learning for real-time pan-tissue pan-disease pathology search on social media.  | 1   |

|    |  |    |
|----|--|----|
| 99 | Flexible Modelling of Longitudinal Medical Data. <b>2020</b> , 1, 1-15   | 3  |
| 98 | Ethical considerations about artificial intelligence for prognostication in intensive care. <b>2019</b> , 7, 70  | 25 |
| 97 | Unlocking the Power of Artificial Intelligence and Big Data in Medicine. <b>2019</b> , 21, e16607  | 21 |
| 96 | Artificial Intelligence in Anatomic Pathology. <b>2021</b> , 4, 145-171  | 0  |
| 95 | Monte Carlo Dropout for Uncertainty Estimation and Motor Imagery Classification. <b>2021</b> , 21,   | 4  |
| 94 | Uncertainty quantification using Auto-tuned Surrogates of CFD model Simulating Supersonic flow over tactical missile body. <b>2020</b> ,   |    |
| 93 | Explanation and Use of Uncertainty Obtained by Bayesian Neural Network Classifiers for Breast Histopathology Images. <b>2021</b> , PP,   | 4  |
| 92 | A New Classification Technique Based on the Combination of Inner Evidence. <b>2020</b> , 174-186   |    |
| 91 | Personalized Cell Therapy for Patients with Peripheral Arterial Diseases in the Context of Genetic Alterations: Artificial Intelligence-Based Responder and Non-Responder Prediction.. <b>2021</b> , 10, | 0  |
| 90 | Multiscale modeling in smart cities: A survey on applications, current trends, and challenges. <b>2021</b> , 103517  | 8  |
| 89 | Towards targeted ultrasound-guided prostate biopsy by incorporating model and label uncertainty in cancer detection. <b>2021</b> , 17, 121   | 1  |
| 88 | Ethics, emerging research trends, issues and challenges. <b>2022</b> , 317-368   | 0  |
| 87 | Uncertainty-aware membranous nephropathy classification: A Monte-Carlo dropout approach to detect how certain is the model. 1-11   |    |
| 86 | Investigating Unfavorable Factors That Impede MALDI-TOF-Based AI in Predicting Antibiotic Resistance.. <b>2022</b> , 12,   |    |
| 85 | Low Power Stochastic Neurons From SiO <sub>2</sub> -Based Bilayer Conductive Bridge Memristors for Probabilistic Spiking Neural Network Applications--Part II: Modeling. <b>2022</b> , 1-9               | 3  |
| 84 | Statistical distortion of supervised learning predictions in optical microscopy induced by image compression.. <b>2022</b> , 12, 3464  |    |
| 83 | Deep learning-based image reconstruction and post-processing methods in positron emission tomography for low-dose imaging and resolution enhancement.. <b>2022</b> , 1                                   | 0  |
| 82 | Appositeness of Optimized and Reliable Machine Learning for Healthcare: A Survey.. <b>2022</b> , 1-23  | 4  |

- 81 Towards Efficient Annotations for a Human-AI Collaborative, Clinical Decision Support System: A Case Study on Physical Stroke Rehabilitation Assessment. **2022**,
- 80 A survey of algorithmic recourse:contrastive explanations and consequential recommendations. 1
- 79 Fusion of Probability Density Functions. **2022**, 110, 404-453 1
- 78 A survey on epistemic (model) uncertainty in supervised learning: Recent advances and applications. **2021**, 1
- 77 Towards Causal Algorithmic Recourse. **2022**, 139-166
- 76 Towards a safe and efficient clinical implementation of machine learning in radiation oncology by exploring model interpretability, explainability and data-model dependency.. **2022**, 0
- 75 Image\_1.jpg. **2020**,
- 74 Image\_2.jpg. **2020**,
- 73 Image\_3.jpg. **2020**,
- 72 Image\_4.png. **2020**,
- 71 Image\_5.jpg. **2020**,
- 70 Image\_6.jpg. **2020**,
- 69 Image\_7.jpg. **2020**,
- 68 Data\_Sheet\_1.PDF. **2020**,
- 67 Designing Human-Agent Collaborations: Commitment, responsiveness, and support. **2022**, 1
- 66 Optimal Therapy Design With Tumor Microenvironment Normalization.
- 65 Towards risk-aware artificial intelligence and machine learning systems: An overview. **2022**, 113800 1
- 64 Operationalising AI governance through ethics-based auditing: an industry case study. 0

- 63 Direct Estimation of Choroidal Thickness in Optical Coherence Tomography Images with Convolutional Neural Networks. **2022**, 11, 3203
- 62 Interpretable AI in Healthcare: Enhancing Fairness, Safety, and Trust. **2022**, 241-258 ○
- 61 Safety Issues in Human-Machine Collaboration and Possible Countermeasures. **2022**, 263-277
- 60 Uncertainty-aware convolutional neural network for explainable artificial intelligence-assisted disaster damage assessment. ○
- 59 Uncertainty quantification in medical image synthesis. **2022**, 601-641 ○
- 58 Post-disaster damage classification based on deep multi-view image fusion. ○
- 57 Uncertainty quantification: Can we trust artificial intelligence in drug discovery?. **2022**, 104814 1
- 56 An active learning method for diabetic retinopathy classification with uncertainty quantification. ○
- 55 Target Detection on Hyperspectral Images Using MCMC and VI Trained Bayesian Neural Networks. **2022**, ○
- 54 Analytic Mutual Information in Bayesian Neural Networks. **2022**,
- 53 How Does Predictive Information Affect Human Ethical Preferences?. **2022**,
- 52 A Bayesian Approach for Quantifying Data Scarcity when Modeling Human Behavior via Inverse Reinforcement Learning. ○
- 51 EpICC: A Bayesian neural network model with uncertainty correction for a more accurate classification of cancer. **2022**, 12, ○
- 50 Timing errors and temporal uncertainty in clinical databases: A narrative review. 4, ○
- 49 Mitigating Bias in Radiology Machine Learning: 3. Performance Metrics. 1
- 48 Uncertainty Estimation in Medical Image Classification: Systematic Review. **2022**, 10, e36427 ○
- 47 Explainable, trustworthy, and ethical machine learning for healthcare: A survey. **2022**, 149, 106043 1
- 46 Bayesian neuroevolution using distributed swarm optimization and tempered MCMC. **2022**, 129, 109528 ○

|    |  |   |
|----|--|---|
| 45 | Efficient Combination of CNN and Transformer for Dual-Teacher Uncertainty-guided Semi-supervised Medical Image Segmentation. <b>2022</b> , 226, 107099   | 1 |
| 44 | Improving Trustworthiness of AI Disease Severity Rating in Medical Imaging with Ordinal Conformal Prediction Sets. <b>2022</b> , 545-554   | 0 |
| 43 | Quantification of Predictive Uncertainty via Inference-Time Sampling. <b>2022</b> , 14-25  | 0 |
| 42 | Dropout Strikes Back: Improved Uncertainty Estimation via Diversity Sampling. <b>2022</b> , 125-137  | 1 |
| 41 | Artificial Intelligence in the Medical Context: Who is the Agent in Charge?. <b>2022</b> , 545-565   | 0 |
| 40 | Space Applications of a Trusted AI Framework: Experiences and Lessons Learned. <b>2022</b> ,   | 0 |
| 39 | Meta-free few-shot learning via representation learning with weight averaging. <b>2022</b> ,   | 0 |
| 38 | Uncertainty Quantification and Sensitivity Analysis for the Electrical Impedance Spectroscopy of Changes to Intercellular Junctions Induced by Cold Atmospheric Plasma. <b>2022</b> , 27, 5861 | 0 |
| 37 | Predicting Heavy Metal Concentrations in Shallow Aquifer Systems Based on Low-Cost Physiochemical Parameters Using Machine Learning Techniques. <b>2022</b> , 19, 12180                        | 0 |
| 36 | A review on AI Safety in highly automated driving. 5,  | 0 |
| 35 | UncertaintyFuseNet: Robust uncertainty-aware hierarchical feature fusion model with Ensemble Monte Carlo Dropout for COVID-19 detection. <b>2022</b> ,   | 1 |
| 34 | PathoSpotter: Computational Intelligence Applied to Nephropathology. <b>2022</b> , 253-272   | 0 |
| 33 | Artificial Intelligence in Breast Cancer Screening and Diagnosis. <b>2022</b> ,  | 0 |
| 32 | Transparency of Artificial Intelligence in Healthcare: Insights from Professionals in Computing and Healthcare Worldwide. <b>2022</b> , 12, 10228  | 1 |
| 31 | Recent Advancements in Emerging Technologies for Healthcare Management Systems: A Survey. <b>2022</b> , 10, 1940   | 1 |
| 30 | Uncertainty-informed deep learning models enable high-confidence predictions for digital histopathology. <b>2022</b> , 13,   | 0 |
| 29 | Using Artificial Intelligence for COVID-19 Detection in Blood Exams: A Comparative Analysis. <b>2022</b> , 1-1   | 1 |
| 28 | Temperature guided network for 3D joint segmentation of the pancreas and tumors. <b>2022</b> ,   | 0 |



|    |  |   |
|----|--|---|
| 27 | Deep and statistical learning in biomedical imaging: State of the art in 3D MRI brain tumor segmentation. <b>2023</b> , 92, 450-465                                      | o |
| 26 | Stochastic Synapses Made of Magnetic Domain Walls. <b>2022</b> , 18,   | o |
| 25 | Artificial Intelligence in Nuclear Medicine: Opportunities, Challenges, and Responsibilities Toward a Trustworthy Ecosystem. jnumed.121.263703                           | o |
| 24 | A general framework for quantifying uncertainty at scale. <b>2022</b> , 1,   | o |
| 23 | Contribution of information about acute and geriatric characteristics to decisions about life-sustaining treatment for old patients in intensive care. <b>2023</b> , 23, | o |
| 22 | Monte Carlo Dropout for Uncertainty Analysis and ECG Trace Image Classification. <b>2022</b> , 173-182   | o |
| 21 | Uncertainty, Evidence, and the Integration of Machine Learning into Medical Practice.  | 1 |
| 20 | Gradient Perturbation-based Efficient Deep Ensembles. <b>2023</b> ,  | o |
| 19 | Learning with uncertainty to accelerate the discovery of histone lysine-specific demethylase 1A (KDM1A/LSD1) inhibitors. <b>2023</b> , 24,                               | o |
| 18 | Calibration of Automatic Seizure Detection Algorithms. <b>2022</b> ,   | o |
| 17 | Remote patient monitoring using artificial intelligence: Current state, applications, and challenges.  | 1 |
| 16 | Artificial intelligence-based uncertainty quantification technique for external flow computational fluid dynamic (CFD) simulations. <b>2023</b> , 79-92                  | o |
| 15 | Leveraging Retinal Fundus Images with Deep Learning for Diabetic Retinopathy Grading and Classification. <b>2023</b> , 46, 1901-1916                                     | o |
| 14 | Efficient Uncertainty Quantification for Under-Constraint Prediction Following Learning Using MCMC. <b>2023</b> , 275-287  | o |
| 13 | Lowering the computational barrier: Partially Bayesian neural networks for transparency in medical imaging AI. 5,  | o |
| 12 | Artificial Intelligence, Bioinformatics, and Pathology. <b>2023</b> ,  | o |
| 11 | A modified GNN architecture with enhanced aggregator and Message Passing Functions. <b>2023</b> , 122, 106077  | o |
| 10 | How to account artificial intelligence in human factor analysis of complex systems?. <b>2023</b> , 171, 736-750  | o |

- 9 Evaluating deep learning predictions for COVID-19 from X-ray images using leave-one-out predictive densities. **2023**, 35, 9819-9830
- 8 Estimating and Evaluating the Uncertainty of Rating Predictions and Top-n Recommendations in Recommender Systems.
- 7 Uncertainty-Aware Deep Learning Classification of Adamantinomatous Craniopharyngioma from Preoperative MRI. **2023**, 13, 1132
- 6 Comparing the quality of neural network uncertainty estimates for classification problems. **2022**,
- 5 Understanding Uncertainty: How Lay Decision-makers Perceive and Interpret Uncertainty in Human-AI Decision Making. **2023**,
- 4 Computational medicine: Grand challenges and opportunities for revolutionizing personalized healthcare. 1,
- 3 Artificial intelligence, machine learning and deep learning in advanced robotics, a review. **2023**, 3, 54-70
- 2 Multimodal data fusion for cancer biomarker discovery with deep learning.
- 1 Hyperspectral imaging for early diagnosis of diseases: A review.