

# Publications

Full lists of publications (in [BPP AGH](#) database):

- [Joanna Jaworek-Korjakowska](#)
- [Paweł Kłeczek](#)
- [Andrzej Brodzicki](#)
- [Dariusz Kucharski](#)
- [Michał Piekarski](#)

MVG Group IF: 25.7

## 2022

- Cassidy B., Kendrick C., **Brodzicki A., Jaworek-Korjakowska J.**, Hoon Yap M.: Analysis of the ISIC image datasets: usage, benchmarks and recommendations, Medical Image Analysis, 2022, **IF 8.545, 200 pkt**
- **Wójcicka A.**, Walusiak Ł., Mroczka K., **Jaworek-Korjakowska J.**, Oprzędkiewicz K., Wróbel Z.: The object segmentation from the microstructure of a FSW dissimilar weld, Materials, 2022, **IF 3,748, 140 pkt**
- **Brodzicki A., Kucharski D., Piekarski M., Kostuch A., Jaworek-Korjakowska J.**: Deep neural network interpretability methods for supervised and unsupervised problems, PP-RAI'2022: proceedings of the 3rd Polish conference on Artificial intelligence, 2022
- Gorgoń M., et al.: Systemy wizyjne w zastosowaniach przemysłowych, Nauka - technika - technologia : seria wydawnicza AGH, 2022
- **Piekarski M.**: Deep Neural Network for Beam Profile Classification in Synchrotron, International Beam Instrumentation Conference, 2022
- **Kucharski D., Kostuch A., Brodzicki A., Noworolnik F., Jaworek-Korjakowska J.**: DFU-Ens: End-to-End Diabetic Foot Ulcer Segmentation Framework with Vision Transformer Based Detection, Proceedings of the 25th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI), 2022
- **Jaworek-Korjakowska J., Wójcicka A., Kucharski D., Brodzicki A.**, Kendrick C., Cassidy B., Hoon Yap M.: Skin\_Hair dataset: Setting the benchmark for effective hair inpainting methods for improving the image quality of dermoscopic images, Proceedings of the 2022 European Conference on Computer Vision (ECCV), 2022

## 2021

- **Jaworek-Korjakowska J., Kostuch A.**, Skruch P.: SafeSO: interpretable and explainable deep learning approach for seat occupancy classification in vehicle interior, 2021 IEEE/CVF conference on Computer Vision and Pattern Recognition Workshops, 2021
- **Brodzicki A., Piekarski M., Jaworek-Korjakowska J.**: The whale optimization algorithm

approach for deep neural networks, *Sensors*, 2021, IF 3,847, 100 pkt

- **Jaworek-Korjakowska J., Brodzicki A.**, Cassidy B., Kendrick C., Hoon Yap M.: Interpretability of a deep learning based approach for the classification of skin lesions into main anatomic body sites, *Cancers*, 2021, IF 6.575, 140 pkt

## 2020

- **Andrzej Brodzicki, Joanna Jaworek-Korjakowska, Paweł Kleczek**, Megan Garland, Matthew Bogoyo. *Pre-trained deep convolutional neural network for clostridioides difficile bacteria cytotoxicity classification based on fluorescence images*, *Sensors*, 20(23), 2020, [10.3390/s20236713](https://doi.org/10.3390/s20236713) (HTML)  
[IF5 (2018) = ???]
- **Michał Piekarski, Joanna Jaworek-Korjakowska**, Adriana I. Wawrzyniak, **Marek Gorgon**, Convolutional neural network architecture for beam instabilities identification in Synchrotron Radiation Systems as an anomaly detection problem, *Measurement*, 2020, <https://doi.org/10.1016/j.measurement.2020.108116>  
[IF5 (2018) = 3.364, Top10]
- **Dariusz Kucharski, Paweł Kleczek, Joanna Jaworek-Korjakowska**, Grzegorz Dyduch, **Marek Gorgon**. *Semi-Supervised Nests of Melanocytes Segmentation Method Using Convolutional Autoencoders*. *Sensors*, 2020, vol. 20, issue 6, 1546, doi: [10.3390/s20061546](https://doi.org/10.3390/s20061546) (HTML)  
[IF (2019): 3.275; IF5 (2018) = 2.737, Top10]
- **Joanna Jaworek-Korjakowska, Paweł Kleczek, Marek Gorgon**. *Melanoma Thickness Prediction Based on Convolutional Neural Network With VGG-19 Model Transfer Learning*. 2019 IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW), Long Beach, CA, USA, 2019, pp. 2748–2756, doi: <https://doi.org/10.1109/CVPRW.2019.00333>  
[Honorable Mention Award; 200 pkt MNiSW]
- **Paweł Kleczek, Joanna Jaworek-Korjakowska, Marek Gorgon**. *A novel method for tissue segmentation in high-resolution H&E-stained histopathological whole-slide images*. *Computerized Medical Imaging and Graphics*, 2020, vol. 79, 2022, Art. ID 101686, doi: [10.1016/j.compmedimag.2019.101686](https://doi.org/10.1016/j.compmedimag.2019.101686) (HTML)  
[IF (2019): 3.750; IF5 (2018) = 2.737, Top10]

## 2019

- **Paweł Kleczek**, Grzegorz Dyduch, Agnieszka Graczyk-Jarzynka, **Joanna Jaworek-Korjakowska**. *A New Approach to Border Irregularity Assessment with Application in Skin Pathology*. *Applied Sciences (Basel)*, 2019, 9(10), 2022, doi: [10.3390/app9102022](https://doi.org/10.3390/app9102022) (Abstract, HTML, PDF)  
[IF (2018) = 2.217; IF5 (2018) = 2.287]
- (konferencja) **ICALEPCS'19 Michał Piekarski**, W.T Kitka, **Joanna Jaworek-Korjakowska**. *Deep Neural Network for Anomaly Detection in Accelerators* (PDF, Poster, Web)

## 2018

- **Paweł Kłeczek**, Martyna Lech, Grzegorz Dyduch, **Joanna Jaworek-Korjakowska**, Ryszard Tadeusiewicz. *Segmentation of black ink and melanin in skin histopathological images*. Proc. SPIE 10581, Medical Imaging 2018: Digital Pathology, 105811A (2018); doi: [10.1117/12.2292859](https://doi.org/10.1117/12.2292859). (Abstract)
- **Joanna Jaworek-Korjakowska**, **Paweł Kłeczek**. *eSkin: Study on the Smartphone Application for Early Detection of Malignant Melanoma*. Wireless Communications and Mobile Computing, vol. 2018, Article ID 5767360, pp. 1–11, (2018). doi: [10.1155/2018/5767360](https://doi.org/10.1155/2018/5767360). (HTML, PDF) [IF (2018): 1.396; IF5 (2018) = 1.364]
- **Joanna Jaworek-Korjakowska**, **Paweł Kłeczek**. *Region Adjacency Graph Approach for Acral Melanocytic Lesion Segmentation*. Applied Sciences (Basel), 2018, 8(9), 1430, doi: [10.3390/app8091430](https://doi.org/10.3390/app8091430) (Abstract, HTML, PDF) [IF5 (2018) = 2.287]
- Elżbieta Pociask, Krzysztof Piotr Malinowski, Magdalena Ślęzak, **Joanna Jaworek-Korjakowska**, Wojciech Wojakowski, Tomasz Roleder. *Fully automated lumen segmentation method for intracoronary optical coherence tomography*. Journal of Healthcare Engineering 2018, art. ID 1414076, pp. 1–13, doi: [10.1155/2018/1414076](https://doi.org/10.1155/2018/1414076) (HTML, PDF) [IF5 (2018) = 1.261]
- **Joanna Jaworek-Korjakowska**. *A deep learning approach to vascular structure segmentation in dermoscopy colour images*. BioMed Research International 2018, art. ID 5049390, pp. 1–8, doi: [10.1155/2018/5049390](https://doi.org/10.1155/2018/5049390) (HTML, PDF) [IF5 (2018) = 2.583]
- Megan Garland, **Joanna Jaworek-Korjakowska**, Urszula Libal, Matthew Bogoyo, Marcin Sieńczyk. *An automatic analysis system for high-throughput Clostridium Difficile toxin activity screening*. Applied Sciences (Basel), 2018, 8(9), Art no. 1512, pp. 1–14, doi: [10.3390/app8091512](https://doi.org/10.3390/app8091512) (HTML, PDF) [IF5 (2018) = 2.287]

## 2017

- **Paweł Kłeczek**, Grzegorz Dyduch, **Joanna Jaworek-Korjakowska**, Ryszard Tadeusiewicz. *Automated epidermis segmentation in histopathological images of human skin stained with hematoxylin and eosin*. Proc. SPIE 10140, Medical Imaging 2017: Digital Pathology, 101400M (2017). doi: [10.1117/12.2249018](https://doi.org/10.1117/12.2249018). (Abstract, Poster PDF)
- Philip Gouverneur, **Joanna Jaworek-Korjakowska**, Lukas Köping, Kimiaki Shirahama, **Paweł Kłeczek**, Marcin Grzegorzec. *Classification of Physiological Data for Emotion Recognition*. ICAISC 2017: Artificial Intelligence and Soft Computing (2017), doi: [10.1007/978-3-319-59063-9\\_55](https://doi.org/10.1007/978-3-319-59063-9_55), pp. 619–627 (Abstract)
- **Joanna Jaworek-Korjakowska**, **Paweł Kłeczek**, Marcin Grzegorzec, Kimiaki Shirahama. *Automatic Detection of Blue-Whitish Veil as the Primary Dermoscopic Feature*. ICAISC 2017: Artificial Intelligence and Soft Computing (2017), doi: [10.1007/978-3-319-59063-9\\_55](https://doi.org/10.1007/978-3-319-59063-9_55), pp. 649–657 (Abstract)
- **Paweł Kłeczek**, Sylwia Mól, **Joanna Jaworek-Korjakowska**. *The Accuracy of H&E Stain Unmixing Techniques When Estimating Relative Stain Concentrations*. PCBBE 2017: Advances in

Intelligent Systems and Computing, Springer (2017), doi: [10.1007/978-3-319-66905-2\\_7](https://doi.org/10.1007/978-3-319-66905-2_7), pp. 87–97 ([Abstract](#))

- **Joanna Jaworek-Korjakowska, Paweł Kłeczek**, Ryszard Tadeusiewicz. *Detection and classification of pigment network in dermoscopic color images as one of the 7-point checklist criteria*. PCBBE 2017: Advances in Intelligent Systems and Computing, Springer (2017). pp. 174–181 ([Abstract](#))

## 2016

- **Joanna Jaworek-Korjakowska, Paweł Kłeczek**. *Automatic Classification of Specific Melanocytic Lesions Using Artificial Intelligence*. BioMed Research International, 2016, Vol. 2016, Article ID 8934242, 17 pages. doi: <http://dx.doi.org/10.1155/2016/8934242> ([HTML](#), [PDF](#)) [IF (2016) = 2.134; IF5 (2016) = 2.587]
- Elżbieta Pociask, **Joanna Jaworek-Korjakowska**, Krzysztof Piotr Malinowski, Tomasz Roleder, Wojciech Wojakowski. *Fully automated lipid pool detection using near infrared spectroscopy*. Computational and Mathematical Methods in Medicine, 2016, art. ID 1487859, pp. 1–9, doi: [10.1155/2016/1487859](https://doi.org/10.1155/2016/1487859) ([HTML](#), [PDF](#)) [IF = 1.2]
- **Joanna Jaworek-Korjakowska**. *Computer-aided diagnosis of micro-malignant melanoma lesions applying support vector machines*. BioMed Research International, 2016, art. ID 4381972, pp. 1–8, doi: [10.1155/2016/4381972](https://doi.org/10.1155/2016/4381972) ([HTML](#), [PDF](#)) [IF = 2.476]

## 2015

- **Joanna Jaworek-Korjakowska**. *Novel method for border irregularity assessment in dermoscopic color images*. Computational and Mathematical Methods in Medicine, 2015, art. ID 496202, pp. 1–11, doi: [10.1155/2015/496202](https://doi.org/10.1155/2015/496202) ([HTML](#), [PDF](#)) [IF = 0.887]
- **Joanna Jaworek-Korjakowska**, Ryszard Tadeusiewicz. *Design of a teledermatology system to support the consultation of dermoscopic cases using mobile technologies and cloud platform*. Bio-Algorithms and Med-Systems, 2015, 11(1), pp. 53–58, doi: [10.1515/bams-2015-0004](https://doi.org/10.1515/bams-2015-0004) ([Abstract](#))

## 2014

- **Paweł Kłeczek**, Jarosław Wąs. *Simulation of Pedestrians Behavior in a Shopping Mall*. Lecture Notes in Computer Science, 2014, Vol. 8751, pp. 650–659, doi: [10.1007/978-3-319-11520-7\\_69](https://doi.org/10.1007/978-3-319-11520-7_69) ([Abstract & preview](#))

## 2013

- **Joanna Jaworek-Korjakowska**, Ryszard Tadeusiewicz. *Hair removal from dermoscopic color images*. Bio-Algorithms and Med-Systems, 2013, 9(2), pp. 53–58, doi: [10.1515/bams-2013-0013](https://doi.org/10.1515/bams-2013-0013) ([Abstract](#))

## 2011

- **Joanna Jaworek**. *Wykorzystanie metod przetwarzania obrazów w rozpoznawaniu i diagnostyce czerniaka złośliwego*. PAR Pomiary Automatyka Robotyka, 2011, 15(12), pp. 100–101 ([Abstract](#), [PDF](#))
- Tomasz Pięciak, **Joanna Jaworek**, **Marek Gorgoń**. *Neural networks for medical image processing*. Bio-Algorithms and Med-Systems, 2011, 7(4), pp. 101–110 ([Abstract](#))

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