

# Pablo Andrs Arbelez

## List of Publications by Year in Descending Order

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

64  
papers

7,729  
citations

26  
h-index

70  
g-index

70  
ext. papers

9,673  
ext. citations

4.4  
avg, IF

6.37  
L-index

| #  | Paper                                                                                                                                                                             | IF   | Citations |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 64 | SAMA: Spatially-Aware Multimodal Network with Attention For Early Lung Cancer Diagnosis. <i>Lecture Notes in Computer Science</i> , <b>2021</b> , 48-58                           | 0.9  |           |
| 63 | Micro-surgical anastomose workflow recognition challenge report. <i>Computer Methods and Programs in Biomedicine</i> , <b>2021</b> , 212, 106452                                  | 6.9  | 4         |
| 62 | PharmaNet: Pharmaceutical discovery with deep recurrent neural networks. <i>PLoS ONE</i> , <b>2021</b> , 16, e0241728                                                             | 3.7  | 3         |
| 61 | Comparative validation of multi-instance instrument segmentation in endoscopy: Results of the ROBUST-MIS 2019 challenge. <i>Medical Image Analysis</i> , <b>2021</b> , 70, 101920 | 15.4 | 21        |
| 60 | MAIN: Multi-Attention Instance Network for video segmentation. <i>Computer Vision and Image Understanding</i> , <b>2021</b> , 210, 103240                                         | 4.3  |           |
| 59 | Lung Nodule Malignancy Prediction in Sequential CT Scans: Summary of ISBI 2018 Challenge. <i>IEEE Transactions on Medical Imaging</i> , <b>2021</b> , 40, 3748-3761               | 11.7 | 2         |
| 58 | Design, Screening, and Testing of Non-Rational Peptide Libraries with Antimicrobial Activity: In Silico and Experimental Approaches. <i>Antibiotics</i> , <b>2020</b> , 9,        | 4.9  | 4         |
| 57 | Automatic seizure detection based on imaged-EEG signals through fully convolutional networks. <i>Scientific Reports</i> , <b>2020</b> , 10, 21833                                 | 4.9  | 26        |
| 56 | Automated lung cancer diagnosis using three-dimensional convolutional neural networks. <i>Medical and Biological Engineering and Computing</i> , <b>2020</b> , 58, 1803-1815      | 3.1  | 7         |
| 55 | MANTRA: A Machine-learning Reference Light-curve Data Set for Astronomical Transient Event Recognition. <i>Astrophysical Journal, Supplement Series</i> , <b>2020</b> , 250, 11   | 8    | 3         |
| 54 | An empirical study on global bone age assessment <b>2020</b> ,                                                                                                                    |      | 2         |
| 53 | SIMBA: Specific Identity Markers for Bone Age Assessment. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 753-763                                                        | 0.9  | 3         |
| 52 | Gabor Layers Enhance Network Robustness. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 450-466                                                                         | 0.9  | 3         |
| 51 | UltraGAN: Ultrasound Enhancement Through Adversarial Generation. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 120-130                                                 | 0.9  | 1         |
| 50 | ISINet: An Instance-Based Approach for Surgical Instrument Segmentation. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 595-605                                         | 0.9  | 10        |
| 49 | LUCAS: LUng CAncer Screening with Multimodal Biomarkers. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 115-124                                                         | 0.9  | 2         |
| 48 | Classifying image sequences of astronomical transients with deep neural networks. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2020</b> , 499, 3130-3138         | 4.3  | 5         |

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|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|
| 47 | An image J plugin for the high throughput image analysis of in vitro scratch wound healing assays. <i>PLoS ONE</i> , <b>2020</b> , 15, e0232565                                                | 3.7  | 39  |
| 46 | Active Speakers in Context <b>2020</b> ,                                                                                                                                                       |      | 6   |
| 45 | Hand Pose Estimation for Pediatric Bone Age Assessment. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 531-539                                                                       |      | 12  |
| 44 | SMIT: Stochastic Multi-Label Image-to-Image Translation <b>2019</b> ,                                                                                                                          |      | 15  |
| 43 | Brain Tumor Segmentation and Parsing on MRIs Using Multiresolution Neural Networks. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 332-343                                           | 0.9  | 4   |
| 42 | Convolutional Oriented Boundaries: From Image Segmentation to High-Level Tasks. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , <b>2018</b> , 40, 819-833              | 13.3 | 96  |
| 41 | Light-sheet enhanced resolution of light field microscopy for rapid imaging of large volumes <b>2018</b> ,                                                                                     |      | 2   |
| 40 | Dynamic Multimodal Instance Segmentation Guided by Natural Language Queries. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 656-672                                                  | 0.9  | 27  |
| 39 | An Uncertainty-Aware Visual System for Image Pre-Processing. <i>Journal of Imaging</i> , <b>2018</b> , 4, 109                                                                                  | 3.1  | 5   |
| 38 | Multi-view dynamic facial action unit detection. <i>Image and Vision Computing</i> , <b>2018</b> , 103723                                                                                      | 3.7  | 8   |
| 37 | Multiscale Combinatorial Grouping for Image Segmentation and Object Proposal Generation. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , <b>2017</b> , 39, 128-140     | 13.3 | 265 |
| 36 | Object Instance Segmentation and Fine-Grained Localization Using Hypercolumns. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , <b>2017</b> , 39, 627-639               | 13.3 | 50  |
| 35 | Automated detection of lung nodules with three-dimensional convolutional neural networks <b>2017</b> ,                                                                                         |      | 7   |
| 34 | The three R's of computer vision: Recognition, reconstruction and reorganization. <i>Pattern Recognition Letters</i> , <b>2016</b> , 72, 4-14                                                  | 4.7  | 16  |
| 33 | Convolutional Oriented Boundaries. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 580-596                                                                                            | 0.9  | 48  |
| 32 | Deep Retinal Image Understanding. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 140-148                                                                                             | 0.9  | 177 |
| 31 | Indoor Scene Understanding with RGB-D Images: Bottom-up Segmentation, Object Detection and Semantic Segmentation. <i>International Journal of Computer Vision</i> , <b>2015</b> , 112, 133-149 | 10.6 | 136 |
| 30 | Aligning 3D models to RGB-D images of cluttered scenes <b>2015</b> ,                                                                                                                           |      | 104 |

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|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|
| 29 | Hypercolumns for object segmentation and fine-grained localization <b>2015</b> ,                                                                                                           |      | 605  |
| 28 | <b>2015</b> ,                                                                                                                                                                              |      | 95   |
| 27 | Simultaneous Detection and Segmentation. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 297-312                                                                                  | 0.9  | 306  |
| 26 | Automated particle correspondence and accurate tilt-axis detection in tilted-image pairs. <i>Journal of Structural Biology</i> , <b>2014</b> , 187, 66-75                                  | 3.4  | 4    |
| 25 | A discriminant multi-scale histopathology descriptor using dictionary learning <b>2014</b> ,                                                                                               |      | 3    |
| 24 | Multiscale Combinatorial Grouping <b>2014</b> ,                                                                                                                                            |      | 531  |
| 23 | Learning Rich Features from RGB-D Images for Object Detection and Segmentation. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 345-360                                           | 0.9  | 442  |
| 22 | Optimal and fast rotational alignment of volumes with missing data in Fourier space. <i>Journal of Structural Biology</i> , <b>2013</b> , 184, 345-7                                       | 3.4  | 1    |
| 21 | Perceptual Organization and Recognition of Indoor Scenes from RGB-D Images <b>2013</b> ,                                                                                                   |      | 289  |
| 20 | Volumetric Semantic Segmentation using Pyramid Context Features. <i>Proceedings of the IEEE International Conference on Computer Vision</i> , <b>2013</b> , 2013, 3448-3455                | 3.3  | 7    |
| 19 | Articulated Pose Estimation Using Discriminative Armlet Classifiers <b>2013</b> ,                                                                                                          |      | 47   |
| 18 | Electron microscopy of biotinylated protein complexes bound to streptavidin monolayer crystals. <i>Journal of Structural Biology</i> , <b>2012</b> , 180, 249-53                           | 3.4  | 27   |
| 17 | Semantic segmentation using regions and parts <b>2012</b> ,                                                                                                                                |      | 143  |
| 16 | Multi-component Models for Object Detection. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 445-458                                                                              | 0.9  | 20   |
| 15 | Occlusion boundary detection and figure/ground assignment from optical flow <b>2011</b> ,                                                                                                  |      | 88   |
| 14 | Experimental evaluation of support vector machine-based and correlation-based approaches to automatic particle selection. <i>Journal of Structural Biology</i> , <b>2011</b> , 175, 319-28 | 3.4  | 21   |
| 13 | Contour detection and hierarchical image segmentation. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , <b>2011</b> , 33, 898-916                                   | 13.3 | 2840 |
| 12 | Semantic contours from inverse detectors <b>2011</b> ,                                                                                                                                     |      | 539  |

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|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|
| 11 | Finding Semantic Structures in Image Hierarchies Using Laplacian Graph Energy. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 694-707                     | 0.9  | 19  |
| 10 | Context by region ancestry <b>2009</b> ,                                                                                                                            |      | 31  |
| 9  | <b>2009</b> ,                                                                                                                                                       |      | 14  |
| 8  | From contours to regions: An empirical evaluation <b>2009</b> ,                                                                                                     |      | 232 |
| 7  | <b>2008</b> ,                                                                                                                                                       |      | 220 |
| 6  | Constrained image segmentation from hierarchical boundaries <b>2008</b> ,                                                                                           |      | 29  |
| 5  | A Metric Approach to Vector-Valued Image Segmentation. <i>International Journal of Computer Vision</i> , <b>2006</b> , 69, 119-126                                  | 10.6 | 24  |
| 4  | Energy Partitions and Image Segmentation. <i>Journal of Mathematical Imaging and Vision</i> , <b>2004</b> , 20, 43-57                                               | 1.6  | 21  |
| 3  | Surgical instrument grounding for robot-assisted interventions. <i>Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization</i> , 1-9 | 0.9  |     |
| 2  | Smart Pooling: AI-powered COVID-19 testing                                                                                                                          |      | 2   |
| 1  | PharmaNet: Pharmaceutical discovery with deep recurrent neural networks                                                                                             |      | 1   |