

International Journal Papers.

1. Sára Sáray, Christian A Rössert, Shailesh Appukuttan, Rosanna Migliore, Paola Vitale, Carmen A Lupascu, Luca L Bologna, Werner Van Geit, Armando Romani, Andrew P Davison, Eilif Muller, Tamás F Freund, Szabolcs Káli, “*HippoUnit: A software tool for the automated testing and systematic comparison of detailed models of hippocampal neurons based on electrophysiological data*”, 2021, PLoS Computational Biology 17(1): e1008114. doi: 10.1371/pcbi.1008114
2. Carmen A Lupascu, Annunziato Morabito, Federica Ruggeri, Chiara Parisi, Domenico Pimpinella, Rocco Pizzarelli, Giovanni Meli, Silvia Marinelli, Enrico Cherubini, Antonino Cattaneo, Michele Migliore, “*Computational modeling of inhibitory transsynaptic signaling in hippocampal and cortical neurons expressing intrabodies against gephyrin*”, Front Cell Neurosci. 2020 Jun 16;14:173. doi: 10.3389/fncel.2020.00173
3. Sára Sáray, Christian A Rössert, Shailesh Appukuttan, Rosanna Migliore, Paola Vitale, Carmen A Lupascu, Luca L Bologna, Werner Van Geit, Armando Romani, Andrew P Davison, Eilif Muller, Tamás F Freund, Szabolcs Káli, “*Systematic comparison and automated validation of detailed models of hippocampal neurons*”, 2020, bioRxiv 2020.07.02.184333; doi: 10.1101/2020.07.02.184333
4. Rosanna Migliore, Carmen A Lupascu, Luca L Bologna, Armando Romani, Jean-Denis Courcol, Stefano Antonel, Werner AH Van Geit, Alex M Thomson, Audrey Mercer, Sigrun Lange, Joanne Falck, Christian A Rössert, Ying Shi, Olivier Hagens, Maurizio Pezzoli, Tamas F Freund, Szabolcs Kali, Eilif B Muller, Felix Schürmann, Henry Markram, Michele Migliore, “*The physiological variability of channel density in hippocampal CA1 pyramidal cells and interneurons explored using a unified data-driven modeling workflow*”, 2018, PLoS Comput Biol 14(9): e1006423. doi: 10.1371/journal.pcbi.1006423
5. Paolo Rosati, Carmen A Lupascu, Domenico Tegolo, “*Analysis of low-correlated spatial gene expression patterns: a clustering approach in the mouse brain data hosted in the Allen Brain Atlas*”, 2018, IET Comput. Vis., 12: 996-1006. doi: 10.1049/iet-cvi.2018.5217
6. Ștefan Țălu, Sebastian Stach, Dan Mihai Călugăru, Carmen Alina Lupascu, Simona Delia Nicoară, “*Analysis of normal human retinal vascular network architecture using multifractal geometry*”, International journal of ophthalmology vol. 10,3 434-438. 18 Mar. 2017, doi:10.18240/ijjo.2017.03.17
7. Lupascu, C.A., Morabito, A., Merenda, E., Marinelli, S., Marchetti, C., Migliore, R., Cherubini, E., Migliore, M., “*A general procedure to study subcellular models of transsynaptic signaling at inhibitory synapses*”, Frontiers in Neuroinformatics, June 2016, 10:23
8. ȘTEFAN ȚĂLU, CRISTINA VLĂDUȚIU, CARMEN A. LUPAȘCU, “*Characterization of human retinal vessel arborisation in normal and amblyopic eyes using multifractal analysis*”, International Journal of Ophthalmology, Oct 2015, 8(5): 996-1002
9. ȘTEFAN ȚĂLU, DAN MIHAI CĂLUGĂRU, CARMEN ALINA LUPAȘCU, “*Characterisation of human non-proliferative diabetic retinopathy using the fractal analysis*”, International Journal of Ophthalmology, Aug 2015, 8(4): 770-6
10. Pellegrini E., Robertson G., Trucco E., MacGillivray T.J., Lupascu C., van Hemert J., Williams M.C., Newby D.E., van Beek E. Jr, Houston G., “*Blood vessel segmentation and width estimation in ultra-wide field scanning laser ophthalmoscopy*”, Biomed Opt Express. 2014 Dec 1; 5(12): 4329–4337. ISSN 21567085
11. F. Bellavia, A. Cacioppo, C.A. Lupascu, P. Messina, G. Scardina, D. Tegolo, C. Valenti, “*A non-parametric segmentation methodology for oral videocapillaroscopic images*”, Computer Methods and Programs in Biomedicine, 2014 May, vol. 114, no. 3, pp. 240-246
12. C.A. Lupascu, D. Tegolo, E. Trucco, “*Accurate estimation of retinal vessel width using bagged decision trees and an extended multiresolution Hermite model*”, Medical image analysis, 2013 Dec, 17(8):1164-1180
13. ȘTEFAN ȚĂLU, CRISTINA VLĂDUȚIU, LIVIA ADRIANA POPESCU, CARMEN ALINA LUPAȘCU, ȘTEFAN C. VESA, SIMONA-DELIA ȚĂLU, Fractal and lacunarity analysis of human retinal vessel arborisation in normal and amblyopic eyes. In: "Human & Veterinary Medicine - International Journal of the Bioflux Society (HVM Bioflux)", published by Bioflux Publisher, Cluj-Napoca, vol. 5, no. 2, 2013, p. 45-51, 6fig., 1 tab., 47ref. Summary in English. Online ISSN 2066-7663; Printed ISSN 2066-7655
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Computerized morphometric assessment of the human red blood cells treated with cisplatin. In: "Annals of the Romanian Society for Cell Biology", published by Western University "Vasile Goldiș", Arad and „Babes-Bolyai" University, Cluj-Napoca, vol. 17, no. 2, 2012, p. 105-110, 1 fig., 2tab., 26ref. Summary in English. ISSN 1583-6258

15. C.A. Lupascu, D. Tegolo, E. Trucco, "*FABC: Retinal Vessel Segmentation using AdaBoost*", Information Technology in Biomedicine, IEEE Transactions on , vol.14, no.5, pp. 1267 - 1274, Sept. 2010 ISSN: 1089-7771

Conference Proceedings on International series.

1. Paolo Rosati, Carmen Alina Lupascu, Domenico Tegolo, "*Clustering of low-correlated spatial gene expression patterns in the mouse brain in the Allen Brain Atlas*", 2018 International Conference on Computing and Network Communications (CoCoNet), 2018, pp. 50-57, doi: 10.1109/CoCoNet.2018.8476886
2. C.A. Lupașcu, D. Tegolo, "*A multiscale approach to automatic and unsupervised retinal vessel segmentation using Self-Organizing Maps*", in proc. of CompSysTech 2016 (the 17th International Conference on Computer Systems and Technologies), Palermo, Italy, June 2016, vol. 1164, pp. 182-189, ACM International Conference Proceeding Series
3. C.A. Lupașcu, D. Tegolo, "*Stable Automatic Unsupervised Segmentation of Retinal Vessels Using Self-Organizing Maps and a Modified Fuzzy C-Means Clustering*", in proc. of WILF 2011 (the 9th International Conference on Fuzzy Logic and Applications), Trani, Italy, August 2011, pp. 244 - 252, Lecture Notes in Artificial Intelligence (LNAI) sub library of Lecture Notes in Computer Science (LNCS), vol. 6857, Springer-Verlag Berlin Heidelberg 2011, Anna Maria Fanelli – Witold Pedrycz – Alfredo Petrosino (eds.) ISBN: 978-3-642-23712-6
4. C.A. Lupașcu, D. Tegolo, "*Automatic Unsupervised Segmentation of Retinal Vessels using Self-Organizing Maps and K-means clustering*", in proc. of CIBB 2010 (the 7th International Conference on Computational Intelligence methods for Bioinformatics and Biostatistics), Palermo, Italy, September 2010, pp. 263 - 274, Lecture Notes in Bioinformatics (LNBI 6685), Subseries of Lecture Notes in Computer Science (LNCS), Springer-Verlag Berlin Heidelberg 2011, Riccardo Rizzo – Paulo J.G. Lisboa (eds.) ISBN: 978-3-642-21945-0
5. C.A. Lupascu, D. Tegolo, E. Trucco, "*A Comparative Study on Feature Selection for Retinal Vessel Segmentation Using FABC*", in proc. of CAIP 2009 (the 13th International Conference on Computer Analysis of Images and Patterns), Münster, Germany, September 2009, pp. 655 - 662, Lecture Notes in Computer Science (LNCS), vol. 5702, Springer-Verlag Berlin Heidelberg 2009, Xiaoyi Jiang – Nicolai Petkov (eds.) ISBN: 978-3-642-03766-5

International Conference Proceedings.

1. Rosanna Migliore, Carmen Alina Lupascu, Francesco Franchina, Luca Leonardo Bologna, Armando Romani, Christian Rössert, Sára Saray, Jean-Denis Courcol, Werner Van Geit, Szabolcs Káli, Alex Thomson, Audrey Mercer, Sigrun Lange, Joanne Falck, Eilif Muller, Felix Schürmann, and Michele Migliore, "*Data-driven computational modeling of CA1 hippocampal principal cells and interneurons*", BMC Neuroscience 2017, 18 (Suppl 1):P177
2. Michele Migliore, Carmen A. Lupascu, Luca L. Bologna, Rosanna Migliore, Stefano M. Antonel, Jean-Denis Courcol, Felix Schürmann, "*The Brain Simulation Platform of the Human Brain Project: collaborative web applications and tools for data-driven brain models*", BMC Neuroscience 2017, 18 (Suppl 1):P235
3. C.A. Lupascu, D. Tegolo, F. Bellavia, C. Valenti, "Semi-automatic registration of retinal images based on line matching approach", in 26th IEEE International Symposium on Computer-Based Medical Systems (CBMS 2013), Porto, Portugal, June 2013
4. A. Adamo, A. Cacioppo, P. Messina, G. Scardina, F. Bellavia, D. Tegolo, C.A. Lupascu, C. Valenti, "Flow evaluation of red blood cells in capillaroscopic videos", in 26th IEEE International Symposium on Computer-Based Medical Systems (CBMS 2013), Porto, Portugal, June 2013
5. F. Bellavia, C. Valenti, C.A. Lupascu, D. Tegolo: Approximated Overlap Error for the Evaluation of Feature Descriptors on 3D Scenes. ICIAP (1) 2013: 270-279

6. E. Trucco, L. Ballerini, D. Relan, A. Giachetti, T. MacGillivray, K. Zutis, C. Lupascu, D. Tegolo, E. Pellegrini, G. Robertson, P.J. Wilson, A. Doney and B. Dhillon, Novel VAMPIRE algorithms for quantitative analysis of the retinal vasculature. To appear in 4th IEEE Biosignals and Biorobotics Conference (ISSNIP/BRC), Rio de Janeiro, Brasil, 2013
7. C.A. Lupaşcu, D. Tegolo, "Graph-Based Minimal Path Tracking in the Skeleton of the Retinal Vascular Network", in proc. of CBMS 2012 (The 25th IEEE International Symposium on Computer-Based Medical System), Roma, Italy, June 2012
8. A. Perez-Rovira, T. MacGillivray, E. Trucco, K. S. Chin, K. Zutis, C. A. Lupascu, D. Tegolo, A. Giachetti, P. J. Wilson, A. Doney, B. Dhillon, "VAMPIRE: Vessel Assessment and Measurement Platform for Images of the Retina", in proc. of EMBC 2011 (the 33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society), Boston, USA, August 2011, pp. 3391 – 3394.
9. C.A. Lupascu, "Human Visual Perception and Retinal Diseases", in proc. of CREATE 2010 Conference (Colour Research for European Advanced Technology Employment), Gjøvik, Norway, June 2010, pp. 102 - 106, Gabriele Simone – Jon Yngve Hardeberg – Ivar Farup (eds.) ISBN: 978-82-91313-46-7
10. C.A. Lupascu, D. Tegolo, L. Di Rosa, "Automated detection of optic disc location in retinal images", in proc. of CBMS 2008 (the 21st IEEE International Symposium on Computer-Based Medical Systems), Jyväskylä, Finland, June 2008, pp. 17 - 22, IEEE Computer Society Press, Seppo Puuronen, Mykola Pechenizkiy, Alexey Tsymbal, D. J. Lee (eds.) ISBN: 978-0-7695-3165-6

Book Chapters.

1. T. J. MacGillivray, A. Perez-Rovira, E. Trucco, K. S. Chin, A. Giachetti, C.A. Lupascu, D. Tegolo, P.J. Wilson, A. Doney, A. Laude, B. Dhillon, "VAMPIRE: Vessel Assessment and Measurement Platform for Images of the Retina". Chapter 2 on "MULTI-MODALITY STATE-OF-THE-ART: HUMAN EYE IMAGING AND MODELING" E. Y. K. Ng; Jen Hong Tan; U. Rajendra Acharya; Jasjit S. Suri (Eds) CRC Press - 408 Pages. 2012 ISBN: 9781439869932

PhD Thesis.

1. Automated Detection of Retinal Landmarks for Retinal Diagnosis Purpose