

List of publications

Dr Tibor Lukić
(updated 28.11.2021.)

2021

- **Tibor Lukić** and Péter Balázs, *Limited-view binary tomography reconstruction assisted by shape centroid*, The Visual Computer, Springer, Vol. 12, pp. 1-11, 2021.
- Marina Marčeta and **Tibor Lukić**, *Regularized graph cuts based discrete tomography reconstruction methods*, DOI: <https://doi.org/10.1007/s10878-021-00730-4>, Journal of Combinatorial Optimization, Springer, 2021.
- Tamara Kopianja and **Tibor Lukić**, *Geometrical Moments and Shape Descriptors*, The 6th Conference on Mathematics in Engineering: Theory and Applications (META), Novi Sad, June 11th, pp. 58-64, 2021.
- Tamara Kopianja and **Tibor Lukić**, *Analysis of Some Shape Descriptors for Determining Stainspots Caused by Covid-19*, The 6th Conference on Mathematics in Engineering: Theory and Applications (META), Novi Sad, June 11th, pp. 58-64, 2021.
- **Tibor Lukić** and Tamara Kopianja, *Uvod u varijacioni račun sa primenama u obradi slike*, udžbenik, Fakultet tehnickih nauka, Novi Sad, 2021.
- **Tibor Lukić**, Vladimir Ilić, Ivan Prokić and Jelena Djokić, *Matematika 2 - integralni račun i diferencijalne jednačine*, udžbenik, Fakultet tehnickih nauka, Novi Sad, 2021.

2020

- Benedek Nagy and **Tibor Lukić**, *Binary tomography on the isometric tessellation involving pixel shape orientation*, IET Image Processing, Vol. 14, pp. 25-30, 2020.
- **Tibor Lukić** and Péter Balázs, *Shape circularity assisted tomography reconstruction*, Physica Scripta, IOP Publishing, Volume 95, Number 10, pp. 105211, 2020.
- **Tibor Lukić**, Reneta P. Barneva, Valentin E. Brimkov, Lidija Comic, Natasa Sladoje: *Combinatorial Image Analysis - 20th International Workshop*, IWCIA 2020, Novi Sad, Serbia, July 16-18, 2020, Proceedings. Lecture Notes in Computer Science 12148, Springer 2020.
- Marina Marčeta and **Tibor Lukić**, *Graph Cuts Based Tomography Enhanced by Shape Orientation*. In: Lukic T., Barneva R., Brimkov V., Comic L., Sladoje N. (eds) Combinatorial Image Analysis. IWCIA 2020. Lecture Notes in Computer Science, vol 12148. Springer, 2020.

- Tamara Kopanja and **Tibor Lukić**, *Uvod u varijacioni račun sa primenom u obradi slika*, The 5th Conference on Mathematics in Engineering: Theory and Applications (META), Novi Sad, May 9-10th, pp. 21-25, 2020.
- **Tibor Lukić** and Maria Kiss, *About Shape Orientation and Elongation*, The 5th Conference on Mathematics in Engineering: Theory and Applications (META), Novi Sad, May 9-10th, pp. 129-134, 2020.

2019

- **Tibor Lukić** and Benedek Nagy, *Regularized binary tomography on the hexagonal grid*, Physica Scripta, IOP Publishing, Vol. 94, 025201 (9pp), 2019.

2018

- Benedek Nagy and **Tibor Lukić**, *Binary Tomography on Triangular Grid Involving Hexagonal Grid Approach Hexagonal Grid Approach*, Proceedings of 19th International Workshop on Combinatorial Image Analysis (IWCIA), Springer-Verlag, LNCS, vol. 11255, Porto, Portugal, November 22-24, 2018.
- Marina Marčeta and **Tibor Lukić**, *Algebraic reconstruction methods in discrete tomography*, Proceedings of 3rd Conference on Mathematics in Engineering: Theory and Applications (META 2018), pp. 46–52, Novi Sad, Serbia, May 12-13th, 2018.
- Marina Marčeta and **Tibor Lukić**, *Area based shape descriptors for image analysis*, Proceedings of 3rd Conference on Mathematics in Engineering: Theory and Applications (META 2018), pp. 52–58, Novi Sad, Serbia, May 12-13th, 2018.

2017

- Marina Marčeta and **Tibor Lukić**, *Discrete Tomography Reconstruction Approaches*, Proceedings of 2th Conference on Mathematics in Engineering: Theory and Applications (META), pp. 134-140, Novi Sad, Serbia, June 23-24, 2017.
- **Tibor Lukić** and Marina Marčeta, *Gradient and Graph Cuts Based Method for Multi-level Discrete Tomography*, Proceedings of 18th International Workshop on Combinatorial Image Analysis (IWCIA), Springer-Verlag, LNCS, vol. 10256, pp. 322-333, Plovdiv, Bulgaria, June 19-21, 2017.
- Benedek Nagy and **Tibor Lukić**, *Sűrűvetítéses tomográfiai módszer háromszög típusú képrácson*, Proceedings of 11th Conference of the Hungarian Association for Image Processing and Pattern Recognition (KÉPAF), Sovata, Romania, January 24-27, 2017.
- **Tibor Lukić** and Péter Balázs, *Alakzatok irányultságra támaszkodó bináris tomográfiai módszer*, Proceedings of 11th Conference of the Hungarian Association for Image Processing and Pattern Recognition (KÉPAF), Sovata, Romania, January 24-27, 2017.

2016

- Benedek Nagy and **Tibor Lukić**, *Dense Projection Tomography on the Triangular Tiling*, accepted for publication, *Fundamenta Informaticae*, vol. 145, pp. 125-141, IOS Press, 2016.
- **Tibor Lukić** and Péter Balázs, *Binary tomography reconstruction based on shape orientation*, *Pattern Recognition Letters*, vol. 79, pp. 18-24, Elsevier, 2016.
- **Tibor Lukić** and Valéria Guzsvány, *Energy minimization based image denoising method for scanning electron micrographs of selected voltametric working electrode surfaces*, In *Proceedings of the First Conference on Mathematics in Engineering: Theory and Applications (META)*, Novi Sad, March 4-6th, pp. 50-60, 2016.
- **Tibor Lukić**, Dunja Arsić and Maria Kiss, *Image denoising based on gradient type optimization*, In *Proceedings of the First Conference on Mathematics in Engineering: Theory and Applications (META)*, Novi Sad, March 4-6th, pp. 61-74, 2016.
- **Tibor Lukić** and Benedek Nagy, *A deterministic binary tomography reconstruction method on the hexagonal image grid*, submitted to journal publication, 2016.

2015

- Magdalena Stoyanova and **Tibor Lukić**, *Mapping the Conservations Status of Easel Painting. Craquelure Structure Visualization by Binary Image Segmentation Approach*, *Proceedings of the International Conference of Digital Presentation and Preservation of Cultural and Scientific Heritage (DiPP2015)*, 28-30 September, Veliko Tarnovo, Bulgaria, 2015.
- Elisa Valentina Moisi, Benedek Nagy, **Tibor Lukić** and Vladimir-Ioan Cretu, *Comparing memetic and simulated annealing approaches for discrete tomography on the triangular grid*, *Proceedings of 10th Jubilee IEEE International Symposium on Applied Computational Intelligence and Informatics (SACI)*, Timisoara, Romania, May 21-23, pp. 523-528, 2015.

2014

- **Tibor Lukić** and Joviša Žunić, *A non-gradient-based energy minimization approach to image denoising problem*, *Inverse Problems*, Vol. 30 (095007), IOP Publishing, 2014.
- **Tibor Lukić** and Benedek Nagy, *Deterministic Discrete Tomography Reconstruction Method for Images on Triangular Grid*, *Pattern Recognition Letters*, Elsevier, Vol. 49, pp. 11-16, 2014.

2013

- **Tibor Lukić**, Elisa Moisi and Nagy Benedek, *Soft computing methods for discrete tomography on the triangular grid*, Proceedings of Conference of the Hungarian Association for Image Processing and Pattern Recognition (KÉPAF), Bakonybél, Hungary, pp. 450-463, 2013.

2012

- **Tibor Lukić**, Benedek Nagy, *Energy-minimization based Discrete Tomography Reconstruction Method for Images on Triangular Grid*, Proceedings of Combinatorial Image Analysis - 15th International Workshop (IWCIA), Austin (TX), USA, LNCS, Vol. 7655, Springer-Verlag, pp. 274-284, 2012.

2011

- **Tibor Lukić**, *Regularized Problems in Image Processing*, Doctoral Thesis, 2011.
- **Tibor Lukić**, Joakim Lindblad, and Nataša Sladoje, *Regularized Image Denoising Based on Spectral Gradient Optimization*, Inverse Problems, Vol. 27:085010, IOP Publishing, 2011.
- **Tibor Lukić**, *Discrete Tomography Reconstruction Based on the Multi-well Potential*, Proceedings of Combinatorial Image Analysis - 14th International Workshop (IWCIA), Madrid, Spain, LNCS, Vol. 6636, Springer-Verlag, pp. 335-345, 2011.
- **Tibor Lukić**, Anikó Lukity, and Gogolák László, *Binary Tomography Reconstruction Method with Perimeter Preserving Regularization*, Proceedings of 8th Conference of the Hungarian Association for Image Processing and Pattern Recognition (KÉPAF), Szeged, Hungary, pp. 83-91, 2011.

2010

- Joakim Lindblad, Nataša Sladoje, and **Tibor Lukić**, *De-noising of SR μ CT Fiber Images by Total Variation Minimization*, Proceedings of 20th International Conference on Pattern Recognition (ICPR), Istanbul, Turkey, 2010.
- **Tibor Lukić** and Anikó Lukity, *A Spectral Projected Gradient Optimization for Binary Tomography*, Computational Intelligence in Engineering, Studies in Computational Intelligence, Vol. 313, Springer-Verlag, pp. 263-272, 2010.

2009

- **Tibor Lukić** and Anikó Lukity, *Binary Tomography Reconstruction Algorithm Based on the Spectral Projected Gradient Optimization*, Proceedings of 10th International Symposium of Hungarian Researchers on Computational Intelligence and Informatics (CINTI), pp. 253–263, 2009.
- Nebojša M. Ralević and **Tibor Lukić**, *A New Variant of Newton's Method Based on Power Mean*, Proceedings of 7th IEEE International Symposium on Intelligent Systems and Informatics (SISY), pp. 119–122, 2009.

2008

- **Tibor Lukić**, Nataša Sladoje, and Joakim Lindblad, *Deterministic Defuzzification based on Spectral Projected Gradient Optimization*, Proceedings of 30th DAGM Symposium, Munich, Germany, LNCS, Vol. 5096, Springer-Verlag, pp. 476–485, 2008.
- **Tibor Lukić** and Nebojša M. Ralević, *Geometric Mean Newton's Method for Simple and Multiple Roots*, Applied Mathematics Letters, Vol. 21, Elsevier, pp. 30–36, 2008.
- **Tibor Lukić**, *O nekim varijacionim problemima u segmentaciji digitalnih slika*, Master teza, Fakultet tehničkih nauka, Univerzitet u Novom Sadu, 2008.

2007

- Joakim Lindblad, **Tibor Lukić** and Nataša Sladoje, *Defuzzification by Feature Distance Minimization Based on DC Programming*, Proceedings of 5th International Symposium on Image and Signal Processing and Analysis (ISPA), Istanbul, Turkey, pp. 373–379, 2007.

2006

- Joakim Lindblad, Nataša Sladoje, and **Tibor Lukić**, *Feature Based Defuzzification in Z^2 and Z^3 Using a Scale Space Approach*, Proceedings of 13th International Conference on Discrete Geometry for Computer Imagery (DGCI), LNCS, Vol. 4245, Springer-Verlag, pp. 378–389, 2006.
- **Tibor Lukić**, Nebojša M. Ralević and Anikó Lukity, *Application of Aggregation Operators in Solution of Nonlinear Equations*, Proceedings of 4th Serbian-Hungarian Joint Symposium on Intelligent Systems (SISY), pp. 329–339, Subotica, 2006.

2005

- Zorana Lužanin and **Tibor Lukić**, *Convergence of the MRV method at singular points*, Novi Sad Journal of Mathematics, Vol. 35, pp. 71–79, 2005.
- **Tibor Lukić** and Nebojša M. Ralević, *Newton's Method with Accelerated Convergence Modified by an Aggregation Operator*, Proceedings of 3rd Serbian-Hungarian Joint Symposium on Intelligent Systems (SISY), pp. 121–128, Subotica, 2005.

2004

- T. Grbić, S. Likavec, **T. Lukić**, J. Pantović, N. Sladoje and Lj. Teofanov, *Zbirka rešenih zadataka iz Matematike I*, Fakultet tehničkih nauka, Novi Sad, 2001, 2004, 2007, 2009.
- **Tibor Lukić**, *Modifikacije Njutnovog postupka za jednu klasu singularnih sistema*, Magistarska teza, PMF, Univerzitet u Novom Sadu, 2004.