References

A.H. Anderson and A.C. Kak, (1984), "Simultaneous Algebraic Reconstruction Technique (SART): A superior implementation of the ART algorithm", *Ultrason Imaging* 6, 1, pp.81-94.

Alenius S and Ruotsalainen U, (2002), "Generalization of median root prior reconstruction" *IEEE Trans. Med. Imaging* 21 1413–20

Alenius S, Ruotsalainen U and Astola J, (1998), "Using local median as the location of the prior distribution in iterative emission tomography image reconstruction" *IEEE Transactions on Nuclear Science*, **45**(6): 3097-3104

Anderson JMM, Srinivasan R, Mair BA, Votaw JR, (2005) "Accelerated penalized weighted least-squares and maximum likelihood algorithms for reconstructing transmission images from PET transmission data". *IEEE Trans Med Imag* 24:337-351

Baodong Liu. (2011), "Image reconstruction from limited angel projections collected by multisource interior x-ray imaging systems", *Physics in Medicine and Biology*.

Buyle, P., C. Hunter, and H. Dejonghe. (2007), "Completely analytical families of anisotropic-models" *Monthly Notices of the Royal Astronomical Society*

Candès E J, Romberg J and Tao T, (2006), "Robust uncertainty principles: Exact signal reconstruction from highly incomplete frequency information." *IEEE Transactions on Information Theory*, 52(2): 489-509.

Chen G-H, Tang J and Leng S, (2008), "Prior image constrained compressed sensing (PICCS): a method to accurately reconstruct dynamic CT images from highly undersampled projection datasets." *Med Phys* **35**(2): 660-663.

Chen Y, Chen WF, Feng YQ, Feng QJ. (2006), "Convergent Bayesian reconstruction for PET using new MRF quadratic membrane-plate hybrid multi-order prior", *Lecture Notes in Computer Science, Medical Imaging and Augmented Reality, Springer Publishers* 4091, pp. 309-316.

Chen, Y. (2010), "Bayesian statistical reconstruction for low-dose X-ray computed tomography using an adaptive-weighted nonlocal prior", *Computerized Medical Imaging and Graphics, Elsevier*

Chlewicki W, Hermansin F, Hansen SB, (2004), "Noise reduction and convergence of Bayesian algorithms with blobs based on the Huber function and median root prior". *Physics in Medicine and Biology,* 49, 20, pp. 4717-30.

Chun I Y and Talavage T M, (2013), "Efficient Compressed Sensing Statistical X-Ray CT Reconstruction from Fewer Measurements" *The 12th International Meeting on Fully Three-Dimensional Image Reconstruction in Radiology and Nuclear Medicine*, pp30-33

Chung Chan, Roger Fulton, David Dagan Feng, and Steven Meikle, (2009), "Regularized image reconstruction with an anatomically adaptive prior for positron emission tomography", *Physics in Medicine and Biology* 54 24.

Cui, Xueying, Gui Zhiguo, Zhang Quan, Yi Liu, and Ruifen Ma. (2014), "The statistical sinogram smoothing via adaptive-weighted total variation regularization for low-dose X-ray CT", *Optik-International journal for Light and Electronic Optics*

D. Kazantsev, S. R. Arridge and S. Pedemonte etc., (2012), "An anatomically driven anisotropic diffusion filtering method for 3D SPECT reconstruction", *Physics in Medicine and Biology* 57, 12, pp. 3793-810.

D.L.Bailey, D.W.Townsend, P.E. Valk, and M.N.Maisey, (2005), "Positron Emission Tomography: Basic Sciences*", Springer-Verleg.*

De Pierro, AR., (1995), "A modified expectation maximization algorithm for penalized likelihood estimation in emission tomography", *IEEE Transactions on Medical Imaging* 14, 1, pp. 132–137

Denisova NV., (2004), "Bayesian reconstruction in SPECT with entropy prior and iterative statistical regularization". *IEEE Transactions on Nuclear Science* 51, 1.

Emanuel Levitan, G.T.Herman, (1987), "A Maximum a Posteriori Probability Expectation Maximization Algorithm for Image Reconstruction in Emission Tomography", *IEEE Transactions on Medical Imaging* 6, 3.

Emran M Abu Anas, Jae G Kim, Soo Y Lee and Md K Hasan, (2011), "Comparison of ring artifact removal methods using flat panel detector based CT images", *BioMedical Engineering OnLine* 10, 72.

Erkan U. Mumcuoglu, Richard Leahy, Simon R. Cherry, and Zhenyu Zhou, (1994), "Fast Gradient-Based Methods for Bayesian Reconstruction of Transmission and Emission PET Images", *IEEE Transactions on Medical Imaging* 13, 4

F. Benvenuto, A. La Camera, C. Theys, A. Ferrari, H. Lantéri and M. Bertero, (2008), "The study of an iterative method for the reconstruction of images corrupted by Poisson and Gaussian noise", *Inverse Problems* 24.

F. Natterer and F. Wubbeling, (2001), "*Mathematical Methods in Image reconstruction*", SIAM, Philadelphia, PA.

Fernández, J.J., Lawrence, A.F., Roca, J., García, I., Ellisman, M.H., Carazo, J.M., (2002), "High performance electron tomography of complex biological specimens", *Journal of Structural Biology- Elsevier* 138, pp. 6–20

Fessler J A, (2006), "Iterative methods for image reconstruction." *ISBI Tutorial*. Arlington Virginia.

Fessler JA, Ficaro EP, Clinthorne NH, Lange K., (1997), "Grouped-coordinate ascent algorithms for penalized-likelihood transmission image reconstruction", *IEEE Transactions on Medical Imaging* 16, 2, pp.166-75.

G I Angelis, A J Reader, F A Kotasidis, W R Lionheart and J C Matthews, (2011), "The performance of monotonic and new non-monotonic gradient ascent reconstruction algorithms for high-resolution neuroreceptor PET imaging", *Physics in Medicine and Biology* 56, 13, pp. 3895-917.

Gao, Yang, Zhaoying Bian, Jing Huang, Yunwan Zhang, Shanzhou Niu, Qianjin Feng, Wufan Chen, Zhengrong Liang, and Jianhua Ma. (2014), "Low-dose X-ray computed tomography image reconstruction with a combined low-mAs and sparse-view protocol", *Optics Express*.

Garcia, J.A. (2003), "On the concept of best achievable compression ratio for lossy image coding", *Pattern Recognition*, Vol. 10.

Geman S and Geman D, (1984), "Stochastic relaxation, Gibbs distributions, and the Bayesian restoration of images" *IEEE Transactions on Pattern Analysis and Machine Intelligence* (6): 721-741.

Ghita, O. (2010), "A new GVF-based image enhancement formulation for use in the presence of mixed noise", *Pattern Recognition- Elsevier*

Gilbert, P., (1972), "Iterative methods for the three-dimensional reconstruction of an object from projections", *Journal of Theoretical Biology - Elsevier* 36, 1, pp. 105-117

Gordon, R., R. Bender, and G. T. Herman, (1970), "Algebraic Reconstruction Techniques (ART) for three-dimensional electron microscopy and x-ray photography", *Journal of Theoretical Biology - Elsevier* 29, 3, pp. 471-481.

Green PJ, (1990), "Bayesian reconstructions from emission tomography data using a modified EM algorithm", *IEEE Transactions on Medical Imaging* 9, 1

Guan, H., Gordon, R., Zhu, Y., (1998), "Combining various projection access schemes with the algebraic reconstruction technique for low-contrast detection in computed tomography". *Physics in Medicine and Biology* 43, pp. 2413–2421.

Gui, Z.g. (2013), "Regularized maximum likelihood algorithm for PET image reconstruction using a detail and edges preserving anisotropic diffusion", *Optik-International journal for Light and Electron Optics*.

Guobao Wang and Jinyi Qi, (2012), "An optimization transfer algorithm for nonlinear parametric image reconstruction from dynamic PET data", *IEEE Transactions on Medical Imaging* 31, 10

Hobiger, T., Kondo, T., Koyama, Y., (2008), "Constrained simultaneous algebraic reconstruction technique (C-SART) a new and simple algorithm applied to ionospheric tomography", *Earth Planet and Space, Springer Publishers* 60, pp. 727–735.

Hongchuan yu. (2004), "Image Anisotropic Diffusion based on Gradient Vector Flow Fields", Lecture notes in Computer Science.

Hongqing Zhu et. al., (2006) "Image Reconstruction for Positron Emission Tomography Using Fuzzy Nonlinear Anisotropic Diffusion Penalty", Medical & biological engineering & computing; 44(11):983-97

Hsiao I-T, Rangarajan A and Gindi G, (2003), "A new convex edge-preserving median prior with applications to tomography." IEEE Transactions on Medical Imaging 22(5): 580-585.

Huaibin Wang, Yuanquan Wang and Wenqi Ren. (2012), "Image Denoising Using Anisotropic Second and Fourth Order Diffusions Based on Gradient Vector Convolution", Computer Science & Information Systems.

Hudson, H.M., Larkin, R.S, (1994), "Accelerated image reconstruction using ordered subsets of projection data", *IEEE Transactions on Medical Imag.* 13, 4.

Hun Liu. (2009), "An Adaptive Method for Recovering Image from Mixed Noisy Data", International Journal of Computer Vision

J. Astola. (1997), "Using local median as the location of the prior distribution in iterative emission tomography image reconstruction", 1997 IEEE Nuclear Science Symposium Conference Record NSSMIC-97

J. Devaney, (1982), "Filtered backpropagation algorithm for diffraction tomography," Ultrason Imaging, Vol. 4, pp. 336- 350.

J. Ling and A. C. Bovik., (2002), "Smoothing low-SNR molecular image via anisotropic median-diffusion", *IEEE Transactions on Medical imaging* vol. 21, no. 4, pp. 377-384.

Jianhua Yan and Jun Yu, (2007), "Median-prior tomography reconstruction combined with nonlinear anisotropic diffusion filtering", JOSA A, Vol. 24, Issue 4, pp. 1026-1033

Jing Wang. (2008), "Multiscale Penalized Weighted Least-Squares Sinogram Restoration for low-Dose X-Ray Computed Tomography", IEEE Transaction on Biomedical Engineering

Jinyi Qi and Richard M Leahy, (2006), "Iterative reconstruction techniques in emission computed tomography", *Physics in Medicine and Biology* 51, 15, pp. R541–R578.

Jun Ma, (2010), "Positively Constrained Multiplicative Iterative Algorithm for Maximum Penalized Likelihood Tomographic Reconstruction", *IEEE Transactions on Nuclear Science* 57, 1

Kaczmarz, S., (1937), "Angenaherte auflosung von systemen linearer gleichungen (Approximate solution to systems of linear equations)", *Bulletin International de l'Academie Polonaise des Sciences et des Lettres A* 35, pp. 355–357.

Kang, D., Slomka, P., Nakazato, R., Woo, J., Berman, D. S., Kuo, C. C. J., & Dey, D, (2013), "Image denoising of low-radiation dose coronary CT angiography by an adaptive block-matching 3D algorithm", In SPIE Medical Imaging (pp. 86692G-86692G) International Society for Optics and Photonics

Kazantsev D, Arridge SR, Pedemonte S, Bousse A, Erlandsson K, Hutton BF, Ourselin S., (2012), "An anatomically driven anisotropic diffusion filtering method for 3D SPECT reconstruction", *Physics in medicine & Biology* 57, 12.

L. A. Shepp and Y. Vardi,(1982), "Maximum likelihood reconstruction for emission tomography," Medical Imaging, IEEE Transactions on, vol. 1, no. 2, pp. 113 –122.
Lange K, Bahn M and Little R, (1987), "A theoretical study of some maximum likelihood algorithms for emission and transmission tomography" IEEE Transactions on Medical Imaging **6**(2): 106-114.

Lange K. (1990), "Convergence of EM image reconstruction algorithms with Gibbs smoothness". *IEEE Transactions on Medical Imaging* 9, 439

Levitan E and Herman G T, (1987), "A maximum a posteriori probability expectation maximization algorithm for image reconstruction in emission tomography" IEEE Transactions on Medical Imaging **6**(3): 185-192.

Liang Z, Jaszczak R and Greer K, (1989), "On Bayesian image reconstruction from projections: uniform and non-uniform a priori source information." IEEE Transactions on Medical Imaging **8**(3): 227-235.

Liu, Li, and Zhi-guo Gui. (2012), "A statistical iteration approach with energy minimization to sinogram noise reduction for low-dose X- ray CT", Optik- International Journal for Light and Electron Optics

Liu, Yan, Jianhua Ma, Yi fan, and Zhengrong Liang (2012), "Adaptive-weighted for sparse data toward low-dose x-ray combined tomography image reconstruction", Physics in Medicine and Biology.

Ludwig, J., Mertelmeier, T., Kunze, H., Heirer, W., (2008), "A novel approach for filtered backprojection in tomosynthesis based on filter kernels determined by iterative reconstruction techniques" *Lecture Notes in Computer Science, Digital Mammography, Springer Publishers* 5116, pp. 612–620.

Lui, Dorothy, Andre Cameron, Amen Modhafar, Daniel S.Cho, and Alexender Wong (2013), "Low-dose computed tomography via spatially adaptive Monte-Carlo reconstruction", Computerized medical Imaging and Graphics.

Ma, Jun. (2010), "Positively Constrained Multiplicative iterative Algorithm for Maximum Penalized Likelihood Tomographic Reconstruction ', IEEE Transactions on Nuclear Science

Marcel Beister, Daniel Kolditz, Willi A. Kalender, (2012), "Iterative reconstruction methods in X-ray CT", *Physica Medica* 28, 2, pp. 94-108.

Michael Kunz, Achilleas S. Frangakis, (2014), "Super-sampling SART with ordered subsets", *Journal of Structural Biology- Elsevier* 188, pp. 107–115

Ming, J., Ge, W., (2003), "Convergence of the simultaneous algebraic reconstruction technique (SART)", *IEEE Trans. Image Processing* 12, 8, pp. 957–961.

Niu, Shanzhou, Yang Gao, Zhaoying Bian, Jing Huang, Wufan Chen, Gaohang Yu, Zhengrong Liang, and Jianhua Ma. (2014), "Sparse-view x-ray CT reconstruction via total generalized variation regularization", Physics in Medicine and Biology.

Nunez J and Llacer J, (1990), "A fast Bayesian reconstruction algorithm for emission tomography with entropy prior converging to feasible images" IEEE Transactions on Medical Imaging **9**(2): 159-171.

Panin VY, Zeng GL, Gullberg GT, (1999), "Total variation regulated EM algorithm", *IEEE Transactions on Nuclear Science*, 46 pp. 2202-2210

Per Christian Hansen, & Maria Saxild-Hansen, AIR Tools, (2012), "A MATLAB package of algebraic iterative reconstruction methods", *Journal of Computational and Applied Mathematics* 236, 8, pp. 2167-2178

Perona and Malik J, (1990), "Scale-space and edge detection using anisotropic diffusion", IEEE Trans. Pattern Analysis Machine Intelligence, 12, 629-39

Phillippe P. Bruyant, (2002), "Analytical and Iterative Reconstruction Algorithms in SPECT", *Journal of Nuclear Medicine* 43, 10 1343-1358.

Pietro Perona and Jitendra Malik, (1990), "Scale-Space and Edge Detection Using Anisotropic Diffusion", *IEEE Transactions on Pattern Analysis and Machine Intelligen.*12, 7

Pietro Perona and Jitendra Malik,(*1990*), "Scale-Space and Edge Detection Using Anisotropic Diffusion" IEEE *Transactions on Pattern Analysis and Machine Iintelligence, vol. 12. No.7*

Prof. Dr. Gengsheng Lawrence Zeng, "Medical Image Reconstruction A Conceptual Tutorial", http://link.springer.com/book/-10.1007%2F978-3-642-05368-9

Qi J and Leahy R M (2006), "Iterative reconstruction techniques in emission computed tomography", Phys. Med. Biol. 51 R541–78

Qian He and Lihong Huang, (2014), "Penalized Maximum Likelihood Algorithm for Positron Emission Tomography by Using Anisotropic Median-Diffusion", *Mathematical Problems in Engineering* Article ID 491239, 7 pages Volume 2014.

Qiong Xu, Xuanqin Mou, Ge Wang, Jered Sieren, Eric A Hoffman, and Hengyong Yu (2011), "Statistical Interior Tomography", IEEE Transactions on Medical Imaging

Quan Zhang, Yi Liu, Huazhong Shu, Zhiguo Gui, (2013), "Application of regularized maximum likelihood algorithm in PET image reconstruction combined with nonlocal fuzzy anisotropic diffusion", *Optik - International Journal for Light and Electron Optics* 124, 20, pp. 4561–4565.

R. Salakhutdinov, Sam R., Z. Ghahramani, (2003), "Optimization with EM and Expectation-Conjugate-Gradient", *Proceedings of the Twentieth International Conference on Machine Learning* (ICML), Washington, DC.

R. Vijayarajan, S. Muttan, (2014), "Iterative block level principal component averaging medical image fusion", *Optik - Elsevier* 125, 17, pp. 4751-4757.

R.Leahy C. Byrne. (2000), "Recent developments in iterative image reconstruction in PET and SPECT", IEEE Transition in Medical Imaging.

Rajeev Srivastava, J.R.P. Gupta, and Harish Parthasarathy, (2010), "Comparison of PDE based and other techniques for speckle reduction from digitally reconstructed holographic images", *Optics and Lasers in Engineering,* Vol. 48, pp. 626-635

Rajeev Srivastava, Subodh Srivastava, (2013), "Restoration of Poisson noise corrupted digital images with nonlinear PDE based filters along with the choice of regularization parameter estimation", *Pattern Recognition Letters* 34 pp. 1175–1185.

Rajeev Srivastava. (2010), "A PDE-based Nonlinear Filter Adaptive to Rayliegh's Speckle Noise for De-speckling 2D Ultrasound Images", Communications in Computer and Information Science

S. Alenius and U. Ruotsalainen, (1997), "Bayesian image reconstruction for emission tomography based on median root prior," European Journal of Nuclear Medicine, vol. 24, no. 3, pp. 258-265.

Shaifali Pande, Dibyendu Ghoshal , (2013), 'A study on some aspects of reconstruction of images by parallel beam back projection method' *Int. J. of Computational Science and Engineering*, Vol. 8, No.2, pp. 162 - 170

Srivastava, R. (2010), "Comparison of PDE based and other techniques for speckle reduction from digitally reconstructed holographic images", Optics and Lasers in Engineering

Srivastava, Rajeev, and Subodh Srivastava. (2013), "Restoration of poisson noise corrupted digital images with nonlinear PDE based filters along with the choice of regularization parameter estimation", Pattern Recognition Letters

Srivastava, Rajeev. (2010), "Restoration of fluorescence microscopic images using a nonlinear PDE based filter", 2010 Annual IEEE India Conference (INDICON)

Srivastava, Subodh, Neeraj Sharma, R. Srivastava, and S.K. Sing (2012), "Restoration of digital mammographic images corrupted with quantum noise using an adaptive total variation (TV) based nonlinear filter", 2012 International Conference on Communications Devices and Intelligent Systems (CODIS).

Sukovic P, Clinthorne NH. (2000), "Penalized weighted least-squares image reconstruction in single and dual energy X-ray computed tomography". *IEEE Transactions on Medical Imaging* 19, 11, pp. 1075–81.

Thibault J-B, Sauer K D, Bouman C A and Hsieh J, (2007), "A three-dimensional statistical approach to improved image quality for multislice helical CT." Med Phys. **34**(11): 4526-4544.

Wang G and Qi J, (2012), "Penalized likelihood PET image reconstruction using patch-based edge preserving regularization" IEEE Transactions on Medical Imaging 31(12): 2194-2204

Wang, G., Jiang, M., (2004), "Ordered-subset simultaneous algebraic reconstruction techniques (OS-SART)", *Journal of X-ray Science Technology* 12, pp. 169–177

Wang, Guobao, and Jinyi Qi (2011), "Patch-based regularization for iterative PET image reconstruction", 2011 IEEE International Symposium on Biomedical Imaging from Nano to Macro.

Wei Guo, Hexin Chen, (2012), "Improving SIRT Algorithm for Computerized Tomographic Image Reconstruction", Recent Advances in Computer Science and Information Engineering Lecture Notes in Electrical Engineering Volume 128, pp 523-528.

Wernick M N and Aarsvold J N, (2004), "Emission tomography: the fundamentals of PET andSPECT", Academic Press.

Whiting, Bruce R., Christoph Hoeschen, Hao Zhang, Jianhua ma, Yan Liu, Hao Han, Lihong Li, Jing Wang, and Zhengrong Liang. (2014), "Nonlocal means-based regularizations for statistical CT reconstruction", Medical Imaging

William H. Press et al., (1992), "Numerical Recipes in C", The Art of Scientific Computing Second Edition, *Cambridge University Press*.

Xu Lei, Huafu Chen, Dezhong Yao, Guanhua Luo, (2007), "An improved ordered subsets expectation maximization positron emission computerized tomography reconstruction", *Computers in Biology & Medicines-Elsevier* 37, 12 pp. 1780-5.

Xu, Qiong, Hengyong Yu, Ge Wang, and Xuanqin Mou. (2014), "Dictionary Learning based Low-dose X-ray CT Reconstruction", Frontiers of Medical Imaging.

Y. Vardi, L. A. Shepp and L. Kaufman, (1985), "A Statistical Model for Positron Emission Tomography", Journal of the American Statistical Association, *Journal of the American Statistical Association* Vol. 80, No. 389.

Yang Chen, (2007), "Bayesian Reconstruction Using a New Nonlocal MRF Prior for Count-Limited PET Transmission Scans", Lecture Notes in Computer Science.

Yang Chen. (2008), "Non-local Prior Bayesian Tomographic Reconstruction", Journal of Mathematical Imaging and Vision

You Y, Xu W, Tannenbaum A, et al.(1996), "Behavioral analysis of anisotropic diffusion in image processing". *IEEE Trans-actions on Image Process,* 5(11): 1 539–1 553

Yu, Lifeng et al. (2015), "Radiation Dose Reduction in Computed Tomography: Techniques and Future Perspective." Imaging in medicine 1.1 (2009): 65–84. PMC. Web.

Yuanquan Wang. (2008), "External Force for Active Contours: Gradient Vector Convolution", Lecture notes in Computer Science.

Yuanquan Wang. (2010), "Convolutional Virtual Electric External Force for Active Contours", Lecture Notes in Computer Science.

Yuxiang Xing, Kejun Kang, Hongbing Lu, Li Zhang (2004), "Dynamic GMRF priors for MAP recon-structions" Nuclear Science Symposium Conference Record, IEEE (Volume: 6)

Z. G. Gui, Y. Liu and J. W. He. (2012) "PML algorithm for positron emission tomography combined with nonlocal fuzzy anisotropic diffusion filtering," IEEE Transactions on nuclear science, vol. 59, no.5, pp. 1984-1989

Zeng GL., (2013), "Comparison of a noise-weighted filtered backprojection algorithm with the Standard MLEM algorithm for poisson noise", *Journal of Nuclear Medicine technology* 41, 4, pp. 283–288

Zhang H, Ma J, Wang J, Liu Y, Han H, Lu H, Moore W, Liang Z. (2014), "Statistical image reconstruction for low-dose CT using nonlocal means-based regularization" Computerized Medical Imaging Graphics

Zhang, Hao, Jianhua Ma, Jing Wang, Yan Liu, Hao Han, Lihong Li, William Moore, and Zhengrong Lian. (2015), "Adaptive nonlocal means-based regularization for statistical image reconstruction of low-dose X-ray CT", Medical Imaging 2015, Physics of Medical Imaging.

Zhang, Quan, Yi Liu, Huazhong Shu, and Zhiguo Gui. (2013), "Application of regularized maximum algorithm in PET image reconstruction combined with nonlocal fuzzy anisotropic diffusion", Optik-International journal for Light and Electron Optics

Zhang, Yuanke, Junying Zhuang, and Hongbing Lu. (2010), "Statistical Sinogram Smoothing for Low-Dose CT with Segmentation-Based Adaptive Filtering", IEEE Transaction on Nuclear Science

Zhang, Yunwan, Jianhua Ma, Jing Huang, Hua Zhang, Zhaoying Bian, Dong Zeng, Qianjin Feng, Zhengrong Liang, and Wufun Chen. (2013), "Iterative image reconstruction for sparse-view CT using normal-dose image induced total variation prior", Medical Imaging

Zhao, Tongtiegang, Ximing Cai, Xiaohui Lei, and Hao Wang. (2010), "Improved Dynamic Programming for Reservoir Operation Optimization with a Concave Objective Function", Journal of Water Resources planning and Management

Zhen Tian. (2011), "Low-dose CT reconstruction via edge-preserving total variation regularization", Physics in Medicine and Biology.

Zhiguo Gui, Yi Liu, Jiawei He, (2012), "PML Algorithm for Positron Emission Tomography Combined With Nonlocal Fuzzy Anisotropic Diffusion Filtering", *IEEE Transactions on Nuclear Science* Volume: 59, Issue: 5, Part: 1.

List of Publications

(A)   Journal Publications

1. Shailendra Tiwari, Rajeev Srivastava, "A Hybrid-Cascaded Framework for PET and SPECT Image Reconstruction", Journal of Medical Imaging & Health Informatics (JMIHI), American Scientific Publishers, USA, (SCI. Indexed, Impact Factor (IF) 0.642), (Accepted, September 8, 2015).

2. Shailendra Tiwari, Rajeev Srivastava, "An OSEM based hybrid-cascaded framework for PET/SPECT Image Reconstruction", Int. Journal of Biomedical Engineering and Technology (IJBET), U.K., Vol. 18, No. 4, pp. 310-332, 2015, InderScience Publishers (Scopus Indexed).

3. Shailendra Tiwari, Rajeev Srivastava, "On the choice and evaluation of regularization priors in penalized maximum-likelihood image reconstruction for CT/PET", Proceedings of the National Academy of Sciences, India Section A: Physical Sciences (NASA), Springer Journals, (Scopus Indexed), SCI Impact Factor (IF) 0.242 submitted on 22nd May. 2015, (under review).

(B)   International/National Conferences (10)

4. Shailendra Tiwari, Rajeev Srivastava, "An Efficient and Modified Median Root Prior based Framework for PET/SPECT reconstruction Algorithm, 8th International Conference on Contemporary Computing (IC3), Noida, India. (Indexed in Scopus (Elsevier), DBLP, IEEE Explore Computer Society.

5. Shailendra Tiwari, Rajeev Srivastava, "A Probabilistic Patch based hybrid framework for CT/PET Image Reconstruction", 3rd International Conference on Signal Processing and Communication, June. 23-25, 2015, Smart Innovation, Systems and Technologies (Vol. 43, Chapter 33) Springer Verlag Publication LNCS (Indexed in Scopus)

6. Shailendra Tiwari, Rajeev Srivastava, "A Hybrid-Cascaded Framework for MLEM based Image Reconstruction", International Conference on Signal Processing and Communication, Mar. 16-18, 2015 Noida, India, IEEE Explore Signal Processing and Communication Society

7. Shailendra Tiwari, Rajeev Srivastava, "An Efficient Hybrid- Cascaded Framework for Emission Computed Tomography using OSEM Image Reconstruction Algorithm", International Conference on Recent cognizance in wireless communication & image processing, Jaipur, India. Springer Publication, LNCS.

8. Shailendra Tiwari, Rajeev Srivastava, "A PDE based Expectation Maximization algorithm adapted to Poisson noise for Medical Image Reconstruction", 14th

IEEE International Symposium on Signal Processing and Information Technology (ISSPIT-2014), Dec. 15-17, 2014, Noida. IEEE Explore, Signal Processing Society

9. Shailendra Tiwari, Rajeev Srivastava, "Review and Comparative Analy sis of Medical Image Reconstruction Algorithms", National Conference on Present Scenario and Future Trends in Biomedical Engineering and Healthcare technologies, Oct. 17-18, 2014, School of Biomedical Engineering, IIT (BHU), Varanasi, U.P.

10. Shailendra Tiwari, Rajeev Srivastava, "A Complex Diffusion Prior Based Bayesian Statistical Reconstruction Approach for Low-Dose X-Ray Computed Tomography", International Workshop/Conference on Bayesian Theory and Applications, Jan 6-10, 2013,DST Centre for Inter disciplinary Mathematical Sciences & Department of Statistics Banaras Hindu University, Varanasi. Online Available at ATLAS

11. Shailendra Tiwari, Rajeev Srivastava (December 2012) "Regularized MLEM reconstruction algorithm adapted to Poisson noise for SPECT/PET images" In Proceedings of AISC-2012, International Conference IIT (BHU), Varanasi

12. Shailendra Tiwari, Rajeev Srivastava "Comparative Analysis of Filtered Backprojection and Algebraic Image Reconstruction using MATLAB, National Conference on 'Mathematical Modelling and Computer Simulation (MMCS-2012) during March 23-25, 2012 at the Department of Applied Mathematics, IIT (BHU), Varanasi.

13. Shailendra Tiwari, Rajeev Srivastava "Medical Imaging Techniques and Image Reconstruction: An Overview" National Conference on Artificial Intelligence and Agents: Theory & Applications December 2011, IIT-BHU Varanasi

(C) Book Chapters (2)

14. Shailendra Tiwari, Rajeev Srivastava, "Research and Developments in Medical Image Reconstruction Methods and its Applications" Chapter 14, (pages 274-312) Research Developments in Computer Vision and Image Processing: Methodologies and Applications, IGI Global Publication

15. Shailendra Tiwari, Rajeev Srivastava, "On the evaluation and selection of Priors for MLEM based CT and PET image reconstruction", International Conference on Emerging Trends in Information Technology (ICETIT-2015), February 21-22, 2015 Babasaheb Bhimrao Ambedkar Univesrity (BBAU), Central University, Lucknow, Shroff Publishers & Distributors Pvt. Ltd, Mumbai.

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