

PUBLICATIONS

BOOKS or BOOK CHAPTERS

1. N. E. Protonotarios, V. Marinakis, N. Dikaios, **G. A. Kastis**, “Chebyshev polynomials of the first kind and applications in tomography,” chapter in *Mathematical Analysis, Differential Equations and Applications*, ed. T.M. Rassias and P. Pardalos, World Scientific. (to appear)
2. N. E. Protonotarios, **G. A. Kastis**, N Dikaios and A. S. Fokas, “Piecewise Polynomial Inversion of the Radon Transform in Three Space Dimensions via Plane Integration and Applications in Positron Emission Tomography” chapter in *Nonlinear Analysis, Differential Equations, and Applications*, ed. T.M. Rassias, Springer, pp. 381-396, 2021.
3. N. E. Protonotarios, **G. A. Kastis** and A. S. Fokas, “A New Approach for the Inversion of the Attenuated Radon Transform,” chapter in *Mathematical Analysis and Applications*, eds T.M. Rassias and P.M. Pardalos, Springer, pp. 433-457, 2019.
Book Citations: 10 (Google Scholar)
4. A. S. Fokas and **G. A. Kastis**, “Mathematical Methods in PET and SPECT Imaging” chapter in *Handbook of Mathematical Methods of Imaging*, Springer, pp. 903-936, 2015.
Book Citations: 479 (Google Scholar)
5. **G. A. Kastis**, “Multi-Modality Imaging of Small-Animals”, Ph. D. Thesis, UMI Press, Michigan, USA, 2002.
Book Citations: 6 (Google Scholar)

PEER-REVIEWED JOURNALS (33)

1. V. Marinakis, A. S. Fokas, **G. A. Kastis**, N. E. Protonotarios, “Chebyshev Interpolation Using Almost Equally Spaced Points and Applications in Emission Tomography,” *Mathematics*, vol. 11, 4757, 2023. (doi: [10.3390/math11234757](https://doi.org/10.3390/math11234757))
IF: 2.400 Citations:
2. N. E. Protonotarios, G. A. Kastis, A. D. Fotopoulos, A. G. Tzakos, D. Vlachos, N. Dikaios, “Motion-compensated PET image reconstruction via separable parabolic surrogates,” *Mathematics*, vol. 11, 55, 2023. (doi: [10.3390/math11010055](https://doi.org/10.3390/math11010055))
IF: 2.400 Citations: 1
3. N. E. Protonotarios, A. S. Fokas, N. Dikaios, **G. A. Kastis**, “Sigmoid and beyond: algebraic activation functions for artificial neural networks based on solutions of a Riccati equation,” *IEEE IT Professional*, vol. 24, no. 5, pp. 30-36, 2022. (doi: [10.1109/MITP.2022.3204904](https://doi.org/10.1109/MITP.2022.3204904))
IF: 2.600 Citations: 1
4. A. S. Fokas, N. Dikaios, S. Tsiodras, **G. A. Kastis**, “Simple formulae, deep learning and elaborate modelling for the Covid-19 pandemic,” *Encyclopedia*, vol. 2(2), 679-689, 2022. (doi: [10.3390/encyclopedia2020047](https://doi.org/10.3390/encyclopedia2020047))
IF: Citations: 2
5. N. E. Protonotarios, A. S. Fokas, A. Vrachliotis, V. Marinakis, N. Dikaios, **G. A. Kastis**, “Reconstruction of preclinical PET images via Chebyshev polynomial approximation of the sinogram,” *Applied Sciences*, vol. 12, 3335, 2022. (doi: [10.3390/app12073335](https://doi.org/10.3390/app12073335))
IF: 2.700 Citations: 4
6. A. Vrachliotis, **G. A. Kastis**, N. E. Protonotarios, A. S. Fokas, S. G. Nekolla, C. D. Anagnostopoulos, L. Costaridou and A. Gaitanis, “Evaluation of the spline reconstruction technique for preclinical PET imaging,” *Computer Methods and Programs in Biomedicine*, vol. 217, 106668, 2022. (doi: [10.1016/j.cmpb.2022.106668](https://doi.org/10.1016/j.cmpb.2022.106668))
IF: 6.100 Citations: 1
7. N. E. Protonotarios, I. Katsamenis, S. Sykiotis, N. Dikaios, **G. A. Kastis**, S. N. Chatziioannou, M. Metaxas, N. Doulamis, A. Doulamis, “A few-shot U-Net deep learning model for lung cancer lesion segmentation via PET/CT imaging,” *Biomedical Physics & Engineering Express*, vol. 8, 025019, 2022. (doi: [10.1088/2057-1976/ac53bd](https://doi.org/10.1088/2057-1976/ac53bd))
IF: 1.400 Citations: 22
8. N. E. Protonotarios, E. Tzampazidou, **G. A. Kastis**, N Dikaios, “Discrete shearlets as a sparsifying transform in a low-rank plus sparse decomposition for undersampled (k, t)-space MR data,” *Journal of Imaging*, vol. 8(2), 29, 2022. (doi: [10.3390/jimaging8020029](https://doi.org/10.3390/jimaging8020029))

- IF: 3.200** **Citations: 2**
9. A. S. Fokas, N. Dikaios, **G. A. Kastis**, "Covid-19: predictive mathematical formulae for the number of deaths during lockdown and possible scenarios for the post-lockdown period," *Proceedings of the Royal Society A*, vol. 477, pp. 20200745, 2021. (doi:[10.1098/rspa.2020.0745](https://doi.org/10.1098/rspa.2020.0745))
- IF: 3.500** **Citations: 23**
10. A. S. Fokas, **G. A. Kastis**, "SARS-CoV-2: The second wave in Europe," *Journal of Medical Internet Research*, vol. 23, no 5, pp. e22431, 2021. (doi: [10.2196/22431](https://doi.org/10.2196/22431))
- IF: 7.400** **Citations: 10**
11. N. Dikaios, N. Protonotarios, A. S. Fokas, **G. A. Kastis**, "Quantification of T1, T2 relaxation times from magnetic resonance fingerprinting radially undersampled data using analytical transformations," *Magnetic Resonance Imaging*, vol. 80, pp. 81-89, 2021. (doi:[10.1016/j.mri.2021.04.013](https://doi.org/10.1016/j.mri.2021.04.013))
- IF: 2.500** **Citations: 2**
12. A. S. Fokas, N. Dikaios and **G. A. Kastis**, "Mathematical models and deep learning for predicting the number of individuals reported to be infected with SARSCoV-2," *Journal of the Royal Society Interface*, vol. 17, 20200494, 2020. (doi: [10.1098/rsif.2020.0494](https://doi.org/10.1098/rsif.2020.0494))
- IF: 3.900** **Citations: 73**
13. C. E. Giannakopoulou, A. Sotiriou, M. Dettoraki, M. Yang, F. Perlikos, D. Toumpanakis, G. Prezerakos, I. Koutsourelakis, **G. A. Kastis**, V. Vassilakopoulou, E. Mizi, J. J. Greer, T. Vassilakopoulos, "Regulation of breathing pattern by IL-10," *American Journal of Physiology-Regulatory, Integrative and Comparative Physiology*, vol. 317, no. 1, pp. R190-R202, 2019. (doi: [10.1152/ajpregu.00065.2019](https://doi.org/10.1152/ajpregu.00065.2019))
- IF: 2.800** **Citations: 12**
14. N. E. Protonotarios, A. S. Fokas, K. Kostarelos, **G. A. Kastis**, "The attenuated spline reconstruction technique for single photon emission computed tomography," *Journal of the Royal Society Interface*, vol. 15, no. 148, 20180509, 2018. (doi: [10.1098/rsif.2018.0509](https://doi.org/10.1098/rsif.2018.0509)).
- IF: 3.900** **Citations: 13**
15. C. Tsoukalas, D. Psimadas, **G. A. Kastis**, V. Koutoulides, A. L. Harris, M. Paravatou-Petsotas, M. Karageorgou, L. R. Furenlid, L. A. Mouloupoulos, D. Stamopoulos, P. Bouziotis, "A novel metal-based imaging probe for targeted dual-modality SPECT/MR imaging of angiogenesis," *Frontiers in Chemistry*, vol. 6, pp. 224, 2018. (doi: [10.3389/fchem.2018.00224](https://doi.org/10.3389/fchem.2018.00224))
- IF: 5.500** **Citations: 36**
16. M. Papachristou, **G. A. Kastis**, P. Z. Stavrou, S. Xanthopoulos, L. R. Furenlid, I. E. Datsaris and P. Bouziotis, "Radiolabelled Methotrexate as a diagnostic agent of inflammatory target sites in patients with rheumatoid arthritis," *Molecular Medicine Reports*, vol 17, pp. 2442-2448, 2018. (doi:[10.3892/mmr.2017.8166](https://doi.org/10.3892/mmr.2017.8166))
- IF: 3.400** **Citations: 6**
17. N. E. Protonotarios, G. M. Spyrou and **G. A. Kastis**, "Automatic cumulative sums contour detection of FBP-reconstructed multi-object nuclear medicine images", *Computers in Biology and Medicine*, vol 85, pp. 43-52, 2017. (doi: [10.1016/j.combiomed.2017.04.010](https://doi.org/10.1016/j.combiomed.2017.04.010))
- IF: 7.700** **Citations: 4**
18. A. Gaitanis, **G. A. Kastis**, E. Vlastou, P. Bouziotis, P. Verginis and C. D. Anagnostopoulos, "Investigation of image reconstruction parameters of the Mediso NanoScan PC small-animal PET/CT scanner for two different positron emitters under NEMA NU 4-2008 standards", *Molecular Imaging and Biology*, vol 19 (4), pp. 550-559, 2017. (doi: [10.1007/s11307-016-1035-9](https://doi.org/10.1007/s11307-016-1035-9)).
- IF: 3.100** **Citations: 14**
19. **G. A. Kastis**, A. Gaitanis, A. P. Samartzis, A. S. Fokas, "The SRT reconstruction algorithm for semiquantification in PET imaging," *Medical Physics*, vol. 42, no. 10, 5970–5982, 2015. (doi: [10.1118/1.4931409](https://doi.org/10.1118/1.4931409))
- IF: 3.800** **Citations: 9**

20. **G. A. Kastis**, D. Kyriakopoulou, A. Gaitanis, Y. Fernandez, B. F. Hutton, A. S. Fokas, "Evaluation of the Spline Reconstruction Technique for PET," *Medical Physics*, vol. 41, no 4, Art. no 042501, 2014. (doi: [10.1118/1.4867862](https://doi.org/10.1118/1.4867862))
IF: 3.800 Citations: 18
21. **G. A. Kastis**, D Toumpanakis, K. Loverdos, A. Anaplioti, A. Samartzis, P. Argyriou, G. Loudos, V. Karavana, V Tzouda, I. Datseris, D. Rontogianni, C. Roussos, S. E. Theocharis, T. Vassilakopoulos, "Dose- and time-dependent effects of lipopolysaccharide on technetium-99m-labeled diethylene-triamine pentaacetic acid clearance, respiratory system mechanics and pulmonary inflammation," *Experimental Biology and Medicine*, vol. 238, pp 209–222, 2013. (doi: [10.1258/ebm.2012.012313](https://doi.org/10.1258/ebm.2012.012313))
IF: 3.200 Citations: 4
22. D. Toumpanakis, **G. A. Kastis**, P. Zacharatos, I. Sigala, T. Michailidou, M. Kouvela, C. Glynos, M. Divangahi, C. Roussos, S. E. Theocharis, T. Vassilakopoulos, "Inspiratory Resistive Breathing Induces Acute Lung Injury," *American Journal of Respiratory and Critical Care Medicine*, vol. 182, pp 1129–1136, 2010. (doi: [10.1164/rccm.201001-0116OC](https://doi.org/10.1164/rccm.201001-0116OC))
IF: 24.700 Citations: 70
23. Z. Liu, G. D. Stevenson, H. H. Barrett, **G. A. Kastis**, M. Bettan, L. R. Furenlid, D. W. Wilson and J. M. Woolfenden, "Imaging Recognition of Inhibition of Multidrug Resistance in Human Breast Cancer Xenografts Using ^{99m}Tc-labeled Sestamibi and Tetrofosmin," *Nuclear Medicine and Biology*, vol. 32, no. 6, pp. 573–583, Aug. 2005. (doi: [10.1016/j.nucmedbio.2005.04.014](https://doi.org/10.1016/j.nucmedbio.2005.04.014))
IF: 3.100 Citations: 29
24. Z Liu, H. H. Barrett, G. D. Stevenson, **G. A. Kastis**, M. Bettan, L. R. Furenlid, D. W. Wilson, and K. Y. Pak, "High-Resolution Imaging with ^{99m}Tc-Glucarate for Assessing Myocardial Injury in Rat Heart Models Exposed to Different Durations of Ischemia with Reperfusion," *Journal of Nuclear Medicine*, vol. 45, no. 7, pp. 1251–1259, Jul. 2004. [download](#)
IF: 9.300 Citations: 45
25. Z. Liu, G. D. Stevenson, H. H. Barrett, **G. A. Kastis**, M Bettan, L. R. Furenlid, D. W. Wilson, J. M. Woolfenden and K.Y. Pak, "^{99m}Tc-Glucarate High-Resolution Imaging of Drug-Sensitive and Drug-Resistant Human Breast Cancer Xenografts in SCID Mice," *Nuclear Medicine Communications*, vol. 25, no. 7, pp. 711–720, Jul. 2004. (doi: [10.1097/01.mnm.0000130243.06821.90](https://doi.org/10.1097/01.mnm.0000130243.06821.90))
IF: 1.500 Citations: 38
26. **G. A. Kastis**, L. R. Furenlid, D. W. Wilson, T. E. Peterson, H. B. Barber, and H. H. Barrett, "Compact CT/SPECT Small-Animal Imaging System," *IEEE Transactions on Nuclear Sciences*, vol. 51, no. 1, pp. 63–67, Feb. 2004. (doi: [10.1109/TNS.2004.823337](https://doi.org/10.1109/TNS.2004.823337))
IF: 1.800 Citations: 113
27. Z. Liu, G. D. Stevenson, H. H. Barrett, **G. A. Kastis**, M. Bettan, L. R. Furenlid, D. W. Wilson, and J. M. Woolfenden, "Imaging Recognition of Multidrug Resistance in Human Breast Tumors Using ^{99m}Tc-Labeled Monocationic Agents and a High-Resolution Stationary SPECT System," *Nuclear Medicine and Biology*, vol. 31, no. 1, pp. 53–65, Jan. 2004. (doi: [10.1016/S0969-8051\(03\)00119-7](https://doi.org/10.1016/S0969-8051(03)00119-7))
IF: 3.100 Citations: 31
28. Z. Liu, **G. A. Kastis**, G. Stevenson, H. H. Barrett, L. R. Furenlid, M. A. Kupinski, D. Patton, and D. W. Wilson, "Quantitative Analysis of Acute Myocardial Infarct in Rat Hearts with Ischemia-Reperfusion Using a High-Resolution Stationary SPECT System," *Journal of Nuclear Medicine*, vol. 43, no. 7, pp. 933–939, Jul. 2002. *The Journal of Nuclear Medicine's 2nd Place Award for Basic Science Investigations.* [download](#)
IF: 9.300 Citations: 168
29. J. W. Hoppin, M. A. Kupinski, **G. A. Kastis**, E. Clarkson, and H. H. Barrett, "Objective Comparison of Quantitative Imaging Modalities Without the Use of a Gold Standard," *IEEE Transactions on Medical Imaging*, vol. 21, no. 5, pp. 441–449, May 2002. (doi: [10.1109/TMI.2002.1009380](https://doi.org/10.1109/TMI.2002.1009380))
IF: 10.600 Citations: 68

30. M. A. Kupinski, J. W. Hoppin, E. Clarkson, H. H. Barrett, and **G. A. Kastis**, "Estimation in Medical Imaging without a Gold Standard," *Academic Radiology*, vol. 9, no. 3, pp. 290–297, Mar. 2002. (doi: [10.1016/S1076-6332\(03\)80372-0](https://doi.org/10.1016/S1076-6332(03)80372-0))
IF: 4.800 **Citations: 51**
31. **G. A. Kastis**, M. C. Wu, S. J. Balzer, D. W. Wilson, L. Furenlid, G. Stevenson, H. H. Barrett, H. B. Barber, J. M. Woolfenden, P. Kelly, and M. Appleby, "Tomographic Small-Animal Imaging Using a High-Resolution Semiconductor Camera," *IEEE Transactions on Nuclear Sciences*, vol. 49, no. 1, part 1, pp. 172–175, Feb. 2002. (doi: [10.1109/TNS.2002.998747](https://doi.org/10.1109/TNS.2002.998747))
IF: 1.800 **Citations: 60**
32. **G. A. Kastis**, H. B. Barber, H. H. Barrett, S. J. Balzer, D. Lu, D. G. Marks, G. Stevenson, J. M. Woolfenden, M. Appleby, and J. Tueller, "Gamma-Ray Imaging Using a CdZnTe Pixel Array and a High-Resolution Parallel-Hole Collimator," *IEEE Transactions on Nuclear Sciences*, vol. 47, no. 6, pp. 1923–1927, Dec. 2000. (doi: [10.1109/23.914471](https://doi.org/10.1109/23.914471))
IF: 1.800 **Citations: 47**
33. T. Juhasz, **G. A. Kastis**, C. Suarez, Z. Bor, and W. E. Bron, "Time-Resolved Observations of Shock Waves and Cavitation Bubbles Generated by Femtosecond Laser Pulses in Corneal Tissue and Water," *Lasers in Surgery and Medicine*, vol. 19, no. 1, pp. 23–31, 1996. (doi: [10.1002/\(SICI\)1096-9101\(1996\)19:1<23::AID-LSM4>3.0.CO;2-S](https://doi.org/10.1002/(SICI)1096-9101(1996)19:1<23::AID-LSM4>3.0.CO;2-S))
IF: 2.400 **Citations: 303**

FULL-PAPER CONFERENCE PROCEEDINGS (16)

1. N. E. Protonotarios, K. Kalimeris and **G. A. Kastis**, "Fokas on Medical Imaging: Analytic Reconstructions for Emission Tomography". In: Bountis, T., Vallianatos, F., Provata, A., Kugiumtzis, D., Kominis, Y. (eds) *Chaos, Fractals and Complexity. COSA-Net 2022*. pp 169–187, Springer Proceedings in Complexity. Springer, Cham, 2023.
2. N. E. Protonotarios, A. Charalambopoulos, **G. A. Kastis**, **Krzysztof Kacperski** and A. S. Fokas, "A spline approach to parallel-hole collimator deblurring for aSRT-reconstructed SPECT images," *The 19th IEEE International Conference on Bioinformatics and Bioengineering, BIBE 2019*, Oct 28–30, 2019, Athens, Greece.
Citations: 1
3. N. E. Protonotarios, A. S. Fokas, A. Gaitanis and **G. A. Kastis**, "aSRT: a new analytic reconstruction algorithm for SPECT", *Conference Record of the 2016 IEEE Nuclear Science Symposium and Medical Imaging Conference*, 29 Oct. –6 Nov. 2016, Strasbourg, France, pp. 1-6 (doi: [10.1109/NSSMIC.2016.8069451](https://doi.org/10.1109/NSSMIC.2016.8069451))
Citations: 1
4. N. E. Protonotarios, G. M. Spyrou and **G. A. Kastis**, "Cumulative sums for edge determination of a single object in PET and SPECT images", *Journal of Physics: Conference Series 738(1)*, 012010, 2016. (*5th International Conference on Mathematical Modeling in Physical Sciences 2016*, Athens, Greece)
5. A. S. Fokas and **G. A. Kastis**, "Boundary value problems and medical imaging," *Journal of Physics: Conference Series 490*, 012017, 2014. (*2nd International Conference on Mathematical Modeling in Physical Sciences 2013*, Prague, Czech Republic)
6. **G. A. Kastis**, D. Kyriakopoulou, A. S. Fokas, "An Analytic Reconstruction Method for PET Based on Cubic Splines," *Journal of Physics: Conference Series 490*, 012128, 2014. (*2nd International Conference on Mathematical Modeling in Physical Sciences 2013*, Prague, Czech Republic).
Citations: 2
7. **G. A. Kastis**, A. Gaitanis, T. Skouras, A. S. Fokas, "Evaluation of a Spline Reconstruction Technique for SPECT: Comparison with FBP and OSEM," *Conference Record of the 2011 IEEE Nuclear Science Symposium and Medical Imaging Conference*, 23–29 Oct. 2011, Valencia, Spain.
Citations: 1
8. **G. A. Kastis**, A. Gaitanis, Y. Fernandez, G. Kontaxakis, A. S. Fokas, "Evaluation of a Spline Reconstruction Technique: Comparison with FBP, MLEM and OSEM," *Conference Record of the 2010 IEEE Nuclear Science Symposium and Medical Imaging Conference*, 30 Oct–6 Nov. 2010, Knoxville, TN, USA.

Citations: 20

- Barbano P. E., Fokas A. S., **Kastis G. A.**, “Analytical Reconstructions for PET and SPECT Employing L^1 –Denoising,” *DSP 2009, Proceedings of the 16th International Conference on Digital Signal Processing*, 5–7 July, 2009, Santorini, Greece, pp 1301–1305.

Citations: 3

- J. W. Hoppin, M. A. Kupinski, D. W. Wilson, T. E. Peterson, B. Gershman, **G. Kastis**, E. Clarkson, L. Furenlid, H. H. Barrett, “Evaluating Estimation Techniques in Medical Imaging Without a Gold Standard: Experimental Validation”, *Proceedings of SPIE, vol. 5034, Medical Imaging 2003: Image Perception, Observer Performance, and Technology Assessment*, D. P. Chakraborty and E.A. Krupinski, eds., May 2003, The International Society for Optical Engineering (SPIE), Bellingham, USA. *Best Student Paper Award Cum Laude*

Citations: 11

- G. A. Kastis**, L. R. Furenlid, D. W. Wilson, T. E. Peterson, H. B. Barber, H. H. Barrett, “Compact CT/SPECT Small-Animal Imaging System” *Conference Record of the 2002 IEEE Nuclear Science Symposium and Medical Imaging Conference*, 10–16 Nov. 2002, Norfolk, VA, USA.

Citations: 2

- J. W. Hoppin, M. A. Kupinski, **G. A. Kastis**, E. Clarkson, H. H. Barrett, “Objective Comparison of Quantitative Imaging Modalities Without the Use of a Gold Standard”, *Information Processing in Medical Imaging, 17th International Conference, IPMI 2001, Lecture Notes in Computer Science*, vol. 2082, M. F. Insana and R. M. Leahy, eds., 2001, Springer, New York, USA.

Citations: 9

- G. A. Kastis**, M. C. Wu, S. J. Balzer, D. W. Wilson, L. Furenlid, G. Stevenson, H. H. Barrett, H. B. Barber, J. M. Woolfenden, P. Kelly, M. Appleby, “Tomographic Small-Animal Imaging Using a High-Resolution Semiconductor Camera”, *Conference Record of the 2000 IEEE Nuclear Science Symposium and Medical Imaging Conference*, vol. 3, Oct. 2000, Institute of Electrical and Electronics Engineers (IEEE), New York, USA.

Citations: 9

- M. C. Wu, **G. A. Kastis**, S. J. Balzer, D. W. Wilson, H. B. Barber, H. H. Barrett, M. W. Dae, B. H. Hasegawa, “High-Resolution SPECT With CdZnTe Detector Array and a Scintillation Camera”, *Conference Record of the 2000 IEEE Nuclear Science Symposium and Medical Imaging Conference*, vol. 3, Oct. 2000, Institute of Electrical and Electronics Engineers (IEEE), New York, USA.

Citations: 10

- G. A. Kastis**, H. B. Barber, H. H. Barrett, S. J. Balzer, D. Lu, D. G. Marks, G. Stevenson, J. M. Woolfenden, M. Appleby, J. Tueller, “Gamma-Ray Imaging Using a CdZnTe Pixel Array and a High-Resolution Parallel-Hole Collimator”, *Conference Record of the 1999 IEEE Nuclear Science Symposium and Medical Imaging Conference*, vol. 1, Oct. 1999, Institute of Electrical and Electronics Engineers (IEEE), New York, USA.

Citations: 2

- T. Juhasz, **G. Kastis**, C. G. Suarez, L. Turi, Z. Bor, W. E. Bron, “Shock Wave and Cavitation Bubble Dynamics During Photodisruption in Ocular Media and Their Dependence on the Pulses Duration”, *Proceedings of SPIE, vol. 2681, Laser Tissue Interaction VII*, S.L. Jacques, ed., May 1996, The International Society for Optical Engineering (SPIE), Bellingham, USA.

Citations: 18**ORAL OR POSTER CONFERENCE PRESENTATIONS (ABSTRACTS) (52)**

- N. E. Protonotarios, S. Thalasselis, **G. A. Kastis**, “SPECT Imaging via Spline-based Inversion of the Attenuated Radon Transform”, *Chemical Biology Workshop on Drug & Biomarker Discovery*, Nov 23-25, 2023.
- M.V. Chatziathanasiadou, A. D. Kostagianni, A. D. Tsailanis, S. Thalasselis, V. Cherezov, G. Alexiou, G. B. Sivolapenko, M. A. El Mubarak, P. Bouziotis, **G. A. Kastis**, A. Klinakis, T. Crook, N. Syed, A. G. Tzakos, “Targeting the Tumor Microenvironment in Gliomas”, *19th Hellenic Symposium on Medicinal Chemistry (HSMC-19)*, Patras, Greece, Mar 9-12, 2023.

3. M. Papachristou, P. Bouziotis, **G. A. Kastis**, I. Datseris, “Επισημασμένη Μεθοτρεξάτη με ^{99m}Tc ως ιχνηθέτης φλεγμονών σε ασθενείς με ρευματοειδή αρθρίτιδα – Προκλινικά αποτελέσματα,” 44ο Ετήσιο Πανελλήνιο Ιατρικό Συνέδριο, Αθήνα, Ελλάδα, 9-12 Μαΐου, 2018.
4. A. Gkolfinopoulou, **G. A. Kastis**, A. Gaitanis, “Towards a Standardization Method for Textural Analysis in Preclinical FDG PET images”, BIOMEPE 2017 - Conference on Bio-Medical Instrumentation and related Engineering and Physical Sciences, Athens, Greece, Oct 12-13, 2017.
5. N. E. Protonotarios, G. M. Spyrou, **G. A. Kastis**, “Cumulative Sums for Masking in Nuclear Medicine Image Reconstruction”, BIOMEPE 2017 - Conference on Bio-Medical Instrumentation and related Engineering and Physical Sciences, Athens, Greece, Oct 12-13, 2017.
6. A. Vrachliotis, **G. A. Kastis**, A. Gaitanis, L. Costaridou, “Evaluation of the Spline Reconstruction Technique under the NEMA NU 4-2008 Standards”, BIOMEPE 2017 - Conference on Bio-Medical Instrumentation and related Engineering and Physical Sciences, Athens, Greece, Oct 12-13, 2017.
7. N. E. Protonotarios, A. S. Fokas, and **G. A. Kastis**, “Attenuated spline reconstruction technique for SPECT/CT”, 9th Conference of the Eastern Mediterranean Region and the Italian Region of the International Biometric Society EMR-IBS, Thessaloniki, May 8–12, 2017.
8. A. Samartzis, G. Fountos, **G. A. Kastis**, E. Kounadi, I. Datseris, I. Kandarakis and G. Nikiforidis, “Towards task-based assessment of PET performance: System and object DQE across different reconstruction algorithms”, *Physica Medica: European Journal of Medical Physics*, vol 32, pp. 319, 2016, 1st European Congress of Medical Physics - ECMP 2016, Athens, Greece, September 1–4, 2016.

Citations: 1

9. N. E. Protonotarios, A. S. Fokas, A. Gaitanis and **G. A. Kastis**, “Inversion of the Attenuated Radon Transform Using Cubic Splines”, *Physica Medica: European Journal of Medical Physics*, vol 32, pp. 242 – 243, 2016, 1st European Congress of Medical Physics - ECMP 2016, Athens, Greece, September 1–4, 2016.

Citations: 2

10. M. Papachristou, P. Bouziotis, **G. A. Kastis**, S. Xanthopoulos, I. Datseris, “Methotrexate Labeling with ^{99m}Tc Preclinical Studies”, 5th Balkan Congress & 13th National Congress of Nuclear Medicine, Thessaloniki, Greece, June 17–20, 2016. (Abstract Book)
11. N. E. Protonotarios, A. S. Fokas and **G. A. Kastis**, “Attenuated Radon transform inversion through piecewise polynomial interpolation of SPECT/CT data”, 5th *International Conference on Mathematical Modeling in Physical Sciences 2016*, Athens, Greece, May 23–26, 2016. (Abstract Book)
12. A. Gaitanis, E. Vlastou, P. Bouziotis, **G. Kastis**, C. D. Anagnostopoulos, “The effect of image reconstruction parameters in Mediso NanoScan PC PET/CT images obtained by two different positron emitting tracers under NEMA standards NU 4-2008,” *European Journal Of Nuclear Medicine And Molecular Imaging*, vol 42, Suppl. 1, pp S185–S186, Oct 2015, Annual Congress of the European Association of Nuclear Medicine EANM 2015, Hamburg, Germany, Oct 10–14, 2015.
13. M. Papachristou, P. Bouziotis, **G. Kastis**, S. Xanthopoulos and I. Datseris, “Methotrexate labeling with ^{99m}Tc – Preclinical studies” *European Journal Of Nuclear Medicine And Molecular Imaging*, vol 42, Suppl. 1, pp S495, Oct 2015, Annual Congress of the European Association of Nuclear Medicine EANM 2015, Hamburg, Germany, Oct 10–14, 2015.
14. A. S. Fokas, **G. A. Kastis** and N. E. Protonotarios, “Analytic reconstructions for PET, SPECT, MEG and EEG”, *Applied Inverse Problems*, Helsinki, Finland, May 25–29, 2015. (Abstract Book)
15. **George Kastis**, New analytical algorithms for PET and SPECT, *Physica Medica*, vol 30, Suppl 1, pp. e10, doi: <http://dx.doi.org/10.1016/j.ejmp.2014.07.041>, 2014. (**invited talk**)
16. **G. A. Kastis**, A. Gaitanis and A. S. Fokas, “Quantitative evaluation of SRT for PET imaging: Comparison with FBP and OSEM”, *NumAn 2014 Recent Approaches to Numerical Analysis: Theory, Methods and Applications*, Chania, Crete, Greece, September 2–5, 2014. (Abstract Book)
17. N. Kiza, C. Tsoukalas, T. Tsoதாக, S. Xanthopoulos, M. Paravatou-Petsotas, **G. Kastis**, P. Bouziotis, “Imaging of VEGF expression with $^{99m}\text{Tc(I)}$ and $^{99m}\text{Tc(V)}$ bevacizumab conjugates”, 2nd International Symposium on Technetium and other Radiometals in Chemistry and Medicine, Bressanone (Bolzano) – Italy September 10–13, 2014, *Nuclear Medicine and Biology*, vol. 41, Issue 7, p. 622, 2014.

18. M. Papachristou, P. Bouziotis, **G. Kastis**, S. Xanthopoulos and I. Datsis, “Επισημάνση μεθοτρεξάτης με ^{99m}Tc – Προκλινικά αποτελέσματα,” 12th Panhellenic Conference on Nuclear Medicine, Ioannina, Greece, May 30–June 1, 2014. (Abstract Book)
19. P. Bouziotis, E. Gourni, N. Kyza, **G. A. Kastis**, T. Tsoதாக, S. Xanthopoulos, L. R. Furenlid, M. Paravatou, C. Tsoukalas, D. Stamopoulos, “Iron Oxide Nanoparticles conjugated with an anti-VEGF monoclonal antibody for targeted dual-modality molecular imaging of angiogenesis,” 8th European Molecular Imaging Meeting - the EMIM 2013, Torino, Italy, May 26–28, 2013.
20. **G. A. Kastis**, A. Samartzis, A. S. Fokas, “Comparison between Filtered Back-Projection and Spline and Chebyshev Reconstruction Techniques,” *European Journal Of Nuclear Medicine And Molecular Imaging*, vol 37, Suppl. 2, pp S221–S221, Oct 2010, Annual Congress of the European Association of Nuclear Medicine EANM 2010, Vienna, Austria, Oct 9–13, 2010.
21. A. Sotiriou, M. Dettoraki, Ch. E. Giannakopoulou, **G. A. Kastis**, D. Parthenis, C. Roussos, T. Vassilakopoulos, “Interleukin 6 Affects the Control of Breathing Before and After Application of Respiratory Load in Mice,” 14th State-of-the-Art Interdisciplinary Review Course on Pulmonary Diseases, Critical Care, Emergency Medicine & Nursing Care, Athens, Greece, June 18–19, 2010. (Abstract Book)
22. A. Sotiriou, M. Dettoraki, H. E. Giannakopoulou, D. Parthenis, **G. A. Kastis**, C. Roussos, T. Vassilakopoulos, “Exogenous administration of interleukin-6 affects the control of breathing in respiratory loaded mice,” *European Respiratory Society ERS 2010 Annual Congress*, Barcelona, Spain, September 18–22, 2010. (Abstract Book)
23. D. Toumpanakis, I. Sigala, **G. A. Kastis**, M. Divangahi, P. Zacharatos, D. Parthenis, A. Makri, T. Michailidou, A. Anaplioti, C. Roussos, T. Vassilakopoulos, “Resistive Breathing Induces Acute Lung Injury,” *American Thoracic Society ATS 2008*, Toronto, Canada, May 16–21, 2008.

Citations: 2

24. A. Sotiriou, M. Dettoraki, **G. Kastis**, I. Rentziou, G. Priona, C. Roussos, T. Vassilakopoulos, “Η Ιντερλευκίνη 6 Επιδρά στον Έλεγχο της Αναπνοής,” 16th Annual Panhellenic Congress on Chest Diseases, Athens, Greece, Dec 6–9, 2007. (Abstract Book)
25. D. Toumpanakis, **G. A. Kastis**, A. Anaplioti, I. Sigala, G. Loudos, A. Samartzis, P. Mavrokfalos, C. Roussos, T. Vassilakopoulos, “Η Εργώδης Αναπνοή Προκαλεί Πνευμονικό Οίδημα Υψηλής Διαπερατότητας,” 16th Annual Panhellenic Congress on Chest Diseases, Athens, Greece, Dec 6–9, 2007. (Abstract Book) (**Best Poster**)
26. A. Sotiriou, M. Dettoraki, **G. A. Kastis**, I. Rentziou, G. Priona, C. Roussos, T. Vassilakopoulos, “Interleukin-6 Affects the Control of Breathing,” *European Respiratory Society ERS 2007 Annual Congress*, Stockholm, Sweden, September 15–19, 2007. (Abstract Book)
27. **G. A. Kastis**, D.G. Toumpanakis, A. Anaplioti, A. Samartzis, G. Loudos, C. Roussos, T. Vassilakopoulos, “Inspiratory Resistive Loading Increases Lung Tc99m-DTPA Clearance in Rats,” 11th State-of-the-Art Interdisciplinary Review Course on Pulmonary Diseases, Critical Care, Emergency Medicine & Nursing Care, Athens, Greece, April 20–22, 2007. (Abstract Book)
28. A. Sotiriou, M. Dettoraki, **G. A. Kastis**, I. Rentziou, G. Priona, C. Roussos, T. Vassilakopoulos, “Interleukin-6 Affects the Control of Breathing,” 11th State-of-the-Art Interdisciplinary Review Course on Pulmonary Diseases, Critical Care, Emergency Medicine & Nursing Care, Athens, Greece, April 20–22, 2007. (Abstract Book)
29. D. S. Margolis, J. A. Szivek, Y. H. Lien, L. Lai, **G. A. Kastis**, H. H. Barrett, “Bone Remodeling in CAII deficient and Calbindin-D28k KO Mice,” *Transactions of the 7th World Biomaterials Congress*, Sydney, Australia, May 17–21, 2004.
30. D. S. Margolis, D. Kim, L. Szivek, L. Lai, **G. Kastis**, Y. H. Lien, “Decreased Osteoblast Activity in Carbonic Anhydrase II Deficient Mice Causes Osteoporotic Bone,” *Journal of Investigative Medicine*, vol. 52, no 1, pp. S80, January 2004, *Western Regional Meeting of the American Federation for Medical Research 2004*, Carmel, CA, January 28–31, 2004.
31. Z. Liu, G.D. Stevenson, H.H. Barrett, **G.A Kastis**, L.R. Furenlid, D.W. Wilson, “^{99m}Tc-Glucarate Can Detect Breast Tumor with Multidrug Resistance: High-resolution SPECT Imaging Study in SCID Mice with Tumor Xenografts,” *Molecular Imaging and Biology*, vol. 5, no. 3, pp. 159–160, Mar. 2003, *The 2003 International Conference of the Academy of Molecular Imaging*, Madrid, Spain, September 21–27, 2003.

32. C. Witte, M. Bernas, T. Myloyde, B. Kriederman, G. McNeil, W. Williams, P. Schornack, **G. A. Kastis**, M. Witte, "Lymphatic Imaging a'la Charles Witte: From Quicksilver to Computers," *XIX International Congress of Lymphology*, Freiburg Germany, September 1–6, 2003. (Abstract Book)
33. Z. Liu, G. D. Stevenson, H. H. Barrett, **G. A. Kastis**, M. Bettan, L. R. Furenlid, D. W. Wilson, J. M. Woolfenden, "Imaging Recognition of Multidrug Resistance in Human Breast Tumor Using ^{99m}Tc-Labeled Monocationic Agents and a High-Resolution SPECT System," *94th Annual Meeting Proceedings of the American Association for Cancer Research*, vol. 44, pp.778, 2003, *94th Annual Meeting of the American Association Cancer Research (AACR)*, Washington DC, USA, July 11–14, 2003.
34. Z. Liu, G. D. Stevenson, H. H. Barrett, **G. A. Kastis**, L. R. Furenlid, D. W. Wilson, M. Bettan, and J. M. Woolfenden, "Recognition of Inhibition of Multidrug Resistance in Human Breast Cancer Xenografts Using ^{99m}Tc-Labeled Sestamibi and Tetrofosmin High-Resolution SPECT Imaging," *Journal of Nuclear Medicine*, vol. 44, no 5 (suppl.), pp. 366P, May 2003, *50th Annual Meeting of the Society of Nuclear Medicine*, New Orleans, LA, USA, June 21–25, 2003.
35. Z. Liu, H. H. Barrett, J. M. Woolfenden, **G. A. Kastis**, G. D. Stevenson, L. R. Furenlid, D. W. Wilson, and K. Y. Pak, "Ischemic Preconditioning in Rat Hearts: High-Resolution SPECT Imaging Using ^{99m}Tc-Labeled Glucarate," *Journal of Nuclear Medicine*, vol. 44, no 5 (suppl.), pp. 191P, May 2003, *50th Annual Meeting of the Society of Nuclear Medicine*, New Orleans, LA, USA, June 21–25, 2003.
36. **G. A. Kastis**, L. R. Furenlid, D. W. Wilson, T. E. Peterson, H. B. Barber, and H. H. Barrett, "Dual Modality CT/SPECT System for Imaging Mice," *Molecular Imaging and Biology*, vol. 4, no. 4, suppl. 1, pp. S22, Jul./Aug. 2002, *The 2002 Annual Academy of Molecular Imaging (AMI) Conference*, San Diego, CA, USA, October 23–27, 2002.
37. K. R. Zinn, **G. A. Kastis**, T. R. Chaudhuri, M. Bettan, Z. Cao, Z. Liu, C. M. Howison, G. D. Stevenson, L. R. Furenlid, D. W. Wilson, and H. H. Barrett, "Ultra-High Resolution SPECT Detects Areas of Ad-Mediated Human Type 2 Somatostatin Receptors (hsstr2) Expression Within Xenograft Tumors in Live Mice," *Molecular Imaging and Biology*, vol. 4, no. 4, suppl. 1, pp. S43, Jul./Aug. 2002, *The 2002 Annual Academy of Molecular Imaging (AMI) Conference*, San Diego, CA, USA, October 23–27, 2002.
38. H. H. Barrett, Z. Liu, L. R. Furenlid, **G. A. Kastis**, "Small-animal SPECT Imaging: Recent Advances in Technology and Applications," *Society for Molecular imaging Annual Meeting (SMI)*, Boston, MA, USA, August 24–26, 2002. (invited talk)
39. Z. Liu, **G. A. Kastis**, G. D. Stevenson, H. H. Barrett, M. Bettan, L. R. Furenlid, D. W. Wilson, J. M. Woolfenden, and K. Y. Pak, "High-Resolution Imaging with ^{99m}Tc-Labeled Glucarate for Assessment of Myocardial Infarcts in Rat Models Exposed to Different Durations of Ischemia Followed by Reperfusion," *Journal of Nuclear Cardiology*, vol. 9, no. 4, pp. S10, 2002, *7th Annual American Society of Nuclear Cardiology Symposium and Scientific Session*, Baltimore, MD, September 26–29, 2002.
40. Z. Liu, **G. A. Kastis**, G. Stevenson, H. H. Barrett, L. R. Furenlid, D. W. Wilson, and J. M. Woolfenden, "Application of High-Resolution SPECT System, FASTSPECT, in Detecting Myocardial Ischemia and Ischemia-Reperfusion Injury in Rats," *Journal of Nuclear Medicine*, vol. 43, no 5 (suppl.), pp. 48P–49P, May 2002, *49th Annual Meeting of the Society of Nuclear Medicine*, Los Angeles, CA, June 15–19, 2002.
41. Z. Liu, **G. A. Kastis**, G. Stevenson, H. H. Barrett, L. R. Furenlid, D. W. Wilson, and J. M. Woolfenden, "In Vivo Identification of Multidrug Resistance in Human Breast Tumor with ^{99m}Tc-Labeled Sestamibi and Furifosmin," *Journal of Nuclear Medicine*, vol. 43, no 5 (suppl.), pp. 277P, May 2002, *49th Annual Meeting of the Society of Nuclear Medicine*, Los Angeles, CA, June 15–19, 2002.
42. Z. Liu, G. Stevenson, **G. A. Kastis**, H. H. Barrett, L. R. Furenlid, D. W. Wilson, J. M. Woolfenden and K. Y. Pak, "^{99m}Tc-glucarate: Detecting Human Breast Tumor in SCID Mice with High-Resolution FASTSPECT Imaging," *Journal of Nuclear Medicine*, vol. 43, no 5 (suppl.), pp. 273P, May 2002, *49th Annual Meeting of the Society of Nuclear Medicine*, Los Angeles, CA, June 15–19, 2002.

Citations: 3

43. J. Hoppin, M. Kupinski, **G. Kastis**, E. Clarkson, H. H. Barrett, "Comparing Different Imaging Modalities Without Truth", *Society for Industrial and Applied Mathematics Imaging Science 2002*, Boston, MA, USA, March 4–6, 2002.
44. Z. Liu, **G. A. Kastis**, G. Stevenson, H. H. Barrett, L. Furenlid, D. Wilson, and K. Y. Pak, "Measurement of Acute Myocardial Infarction in Rats: ^{99m}Tc-Glucarate 'Hot Spots' Imaging with a High-Resolution Stationary SPECT System," *Circulation*, vol. 104, no. 17, pp. II-586, 2001, *American Heart Association Scientific Sessions 2001*, Anaheim, CA, USA, November 11–14, 2001.
45. M. Kupinski, J. Hoppin, **G. Kastis**, E. Clarkson, and H. H. Barrett, "Evaluating Estimation Tasks Without the Use of a Gold Standard," *Medical Image Perception Conference IX*, Warrenton, VA, USA, September 20–23, 2001. (Abstract Book)
46. Z. Liu, **G. A. Kastis**, G. Stevenson, H. H. Barrett, L. Furenlid, M. Kupinski, D. Patton, and D. Wilson, "Quantitative Analysis of Acute Myocardial Infarction in Rats Using a High-Resolution Stationary SPECT System," *High Resolution Imaging in Small Animals: Instrumentation, Applications and Animal Handling*, Rockville, MD, USA, September 9–11, 2001. (Abstract Book)
47. **G. A. Kastis**, H. H. Barrett, H. B. Barber, S. J. Balzer, L. Lee, D. Lu, D. G. Marks, and J. M. Woolfenden, "A Small-Animal Gamma-Ray Imager Using a CdZnTe Pixel Array and a High-Resolution Parallel-Hole Collimator." *High Resolution Imaging in Small Animals with PET, MR, and other Modalities*, Amsterdam, The Netherlands, September 27–29, 1999. (Abstract Book)

Citations: 5

48. **G. A. Kastis**, H. B. Barber, H. H. Barrett, H. C. Gifford, I. W. Pang, D. D. Patton, J. D. Sain, G. Stevenson, and D. W. Wilson, "High Resolution SPECT Imager for Three-Dimensional Imaging of Small Animals," *Journal of Nuclear Medicine*, vol.39, no. 5 (suppl.), pp. 9P, May 1998. *45th Annual Meeting of the Society of Nuclear Medicine*, Toronto, VA, Canada, June 7–9, 1998. **Honorable Mention, Young Investigators Award**

Citations: 56

49. I. W. Pang, H. H. Barrett, **G. A. Kastis**, D. D. Patton, J. D. Sain, and D. W. Wilson, "Tomographically Determining Cardiac Output and Ejection Fraction for an Artificial Heart in a Torso Phantom with Mock Circulation" *Journal of Nuclear Medicine*, vol.39, no. 5 (suppl.), pp. 172P, May 1998. *45th Annual Meeting of the Society of Nuclear Medicine*, Toronto, VA, Canada, June 7–9, 1998.
50. M. M. Rogulski, H. B. Barber, H. H. Barrett, J. D. Eskin, **G. A. Kastis**, W. P. Klein, D. G. Marks, K. J. Matherson, I. W. Pang, D. D. Patton, C. D. Pinto, J. D. Sain, D. W. Wilson, and J. M. Woolfenden, "How to Improve SPECT Resolution: Building on the FASTSPECT Concept," *Journal of Nuclear Medicine*, vol.37, no. 5 (suppl.), pp. 1400, May 1996. *43rd Annual Meeting of the Society of Nuclear Medicine*, Denver, CO, June 3–6, 1996.
51. T. Juhasz, **G. A. Kastis**, C. Suarez, Z. Bor, and W. E. Bron, "Evaluation of the Potential of Femtosecond Laser Pulses for Intraocular Microsurgery," *Investigative Ophthalmology and Visual Science*, vol. 36, no. 4, pp. S987–S987, Mar. 1995. *Investigative Ophthalmology and Visual Science Annual Meeting*, Fort Lauderdale, FL, USA, May 14–19, 1995.
52. T. Juhasz, **G. A. Kastis**, C. Suarez, Z. Bor, and W. E. Bron, "Photoacoustic Effects of Femtosecond Optical Breakdown in Biological Tissue and Water," *Technical Digest of Conference on Lasers and Electro-Optics (CLEO'95)*, Abstract CThI10, Baltimore, MD, USA, May 21–25, 1995.

Citations: 1

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