

Suleman Surti

List of Publications by Year in descending order

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104
papers

4,408
citations

117571

34
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118793

62
g-index

104
all docs

104
docs citations

104
times ranked

2688
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Benefit of Time-of-Flight in PET: Experimental and Clinical Results. Journal of Nuclear Medicine, 2008, 49, 462-470. | 2.8 | 530 |
| 2 | Performance of Philips Gemini TF PET/CT scanner with special consideration for its time-of-flight imaging capabilities. Journal of Nuclear Medicine, 2007, 48, 471-80. | 2.8 | 400 |
| 3 | Update on Time-of-Flight PET Imaging. Journal of Nuclear Medicine, 2015, 56, 98-105. | 2.8 | 212 |
| 4 | NEMA NU 4-2008 Comparison of Preclinical PET Imaging Systems. Journal of Nuclear Medicine, 2012, 53, 1300-1309. | 2.8 | 191 |
| 5 | Improvement in Lesion Detection with Whole-Body Oncologic Time-of-Flight PET. Journal of Nuclear Medicine, 2011, 52, 347-353. | 2.8 | 167 |
| 6 | Investigation of time-of-flight benefit for fully 3-DPET. IEEE Transactions on Medical Imaging, 2006, 25, 529-538. | 5.4 | 157 |
| 7 | Roadmap toward the 10 ps time-of-flight PET challenge. Physics in Medicine and Biology, 2020, 65, 21RM01. | 1.6 | 136 |
| 8 | Advances in time-of-flight PET. Physica Medica, 2016, 32, 12-22. | 0.4 | 124 |
| 9 | The imaging performance of a LaBr ₃ -based PET scanner. Physics in Medicine and Biology, 2010, 55, 45-64. | 1.6 | 120 |
| 10 | Fundamentals of PET and PET/CT imaging. Annals of the New York Academy of Sciences, 2011, 1228, 1-18. | 1.8 | 116 |
| 11 | Design of a lanthanum bromide detector for time-of-flight PET. IEEE Transactions on Nuclear Science, 2004, 51, 2550-2557. | 1.2 | 115 |
| 12 | Design considerations for a limited angle, dedicated breast, TOF PET scanner. Physics in Medicine and Biology, 2008, 53, 2911-2921. | 1.6 | 108 |
| 13 | Impact of Time-of-Flight PET on Whole-Body Oncologic Studies: A Human Observer Lesion Detection and Localization Study. Journal of Nuclear Medicine, 2011, 52, 712-719. | 2.8 | 94 |
| 14 | Imaging performance of a-PET: a small animal PET camera. IEEE Transactions on Medical Imaging, 2005, 24, 844-852. | 5.4 | 91 |
| 15 | Design evaluation of A-PET: A high sensitivity animal PET camera. IEEE Transactions on Nuclear Science, 2003, 50, 1357-1363. | 1.2 | 90 |
| 16 | A recovery coefficient method for partial volume correction of PET images. Annals of Nuclear Medicine, 2009, 23, 341-348. | 1.2 | 89 |
| 17 | Efficient 3-D TOF PET Reconstruction Using View-Grouped Histo-Images: DIRECT"Direct Image Reconstruction for TOF. IEEE Transactions on Medical Imaging, 2009, 28, 739-751. | 5.4 | 78 |
| 18 | Optimizing the performance of a PET detector using discrete GSO crystals on a continuous lightguide. IEEE Transactions on Nuclear Science, 2000, 47, 1030-1036. | 1.2 | 76 |

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|----|--|-----|-----------|
| 19 | Experimental evaluation of a simple lesion detection task with time-of-flight PET. <i>Physics in Medicine and Biology</i> , 2009, 54, 373-384. | 1.6 | 76 |
| 20 | Total Body PET: Why, How, What for?. <i>IEEE Transactions on Radiation and Plasma Medical Sciences</i> , 2020, 4, 283-292. | 2.7 | 75 |
| 21 | Imaging characteristics of a 3-dimensional GSO whole-body PET camera. <i>Journal of Nuclear Medicine</i> , 2004, 45, 1040-9. | 2.8 | 67 |
| 22 | Performance of a brain PET camera based on anger-logic gadolinium oxyorthosilicate detectors. <i>Journal of Nuclear Medicine</i> , 2003, 44, 1340-9. | 2.8 | 65 |
| 23 | Performance assessment of pixelated LaBr/sub 3/ detector modules for time-of-flight PET. <i>IEEE Transactions on Nuclear Science</i> , 2006, 53, 1090-1095. | 1.2 | 63 |
| 24 | Image quality assessment of LaBr3-based whole-body 3D PET scanners: a Monte Carlo evaluation. <i>Physics in Medicine and Biology</i> , 2004, 49, 4593-4610. | 1.6 | 59 |
| 25 | Implementation and Evaluation of a 3D PET Single Scatter Simulation with TOF Modeling. , 2006, , . | | 54 |
| 26 | Design study of an<i>in situ</i>PET scanner for use in proton beam therapy. <i>Physics in Medicine and Biology</i> , 2011, 56, 2667-2685. | 1.6 | 53 |
| 27 | Benefit of Improved Performance with State-of-the Art Digital PET/CT for Lesion Detection in Oncology. <i>Journal of Nuclear Medicine</i> , 2020, 61, 1684-1690. | 2.8 | 53 |
| 28 | Investigation of lanthanum scintillators for 3-D PET. <i>IEEE Transactions on Nuclear Science</i> , 2003, 50, 348-354. | 1.2 | 50 |
| 29 | Update on latest advances in time-of-flight PET. <i>Physica Medica</i> , 2020, 80, 251-258. | 0.4 | 47 |
| 30 | Determination of Accuracy and Precision of Lesion Uptake Measurements in Human Subjects with Time-of-Flight PET. <i>Journal of Nuclear Medicine</i> , 2014, 55, 602-607. | 2.8 | 45 |
| 31 | Impact of detector design on imaging performance of a long axial field-of-view, whole-body PET scanner. <i>Physics in Medicine and Biology</i> , 2015, 60, 5343-5358. | 1.6 | 45 |
| 32 | Improved Dose Regimen in Pediatric PET. <i>Journal of Nuclear Medicine</i> , 2010, 51, 293-300. | 2.8 | 44 |
| 33 | Design Optimization of a Time-Of-Flight, Breast PET Scanner. <i>IEEE Transactions on Nuclear Science</i> , 2013, 60, 1645-1652. | 1.2 | 37 |
| 34 | Radionuclide Methods and Instrumentation for Breast Cancer Detection and Diagnosis. <i>Seminars in Nuclear Medicine</i> , 2013, 43, 271-280. | 2.5 | 37 |
| 35 | Study of PET scanner designs using clinical metrics to optimize the scanner axial FOV and crystal thickness. <i>Physics in Medicine and Biology</i> , 2013, 58, 3995-4012. | 1.6 | 37 |
| 36 | Quantitative PET in the 2020s: a roadmap. <i>Physics in Medicine and Biology</i> , 2021, 66, 06RM01. | 1.6 | 36 |

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|----|---|-----|-----------|
| 37 | Correction Technique for Cascade Gammas in I-124 Imaging on a Fully-3D, Time-of-Flight PET Scanner. IEEE Transactions on Nuclear Science, 2009, 56, 653-660. | 1.2 | 29 |
| 38 | DOI Determination by Rise Time Discrimination in Single-Ended Readout for TOF PET Imaging. IEEE Transactions on Nuclear Science, 2013, 60, 1478-1486. | 1.2 | 29 |
| 39 | Fast List-Mode Reconstruction for Time-of-Flight PET Using Graphics Hardware. IEEE Transactions on Nuclear Science, 2011, 58, 105-109. | 1.2 | 28 |
| 40 | Combining Surface Treatments With Shallow Slots to Improve the Spatial Resolution Performance of Continuous, Thick LYSO Detectors for PET. IEEE Transactions on Nuclear Science, 2013, 60, 44-52. | 1.2 | 28 |
| 41 | Charactization of TOF PET Scanner Based on Lanthanum Bromide. , 0, , . | | 27 |
| 42 | Design Study of a Whole-Body PET Scanner With Improved Spatial and Timing Resolution. IEEE Transactions on Nuclear Science, 2013, 60, 3220-3226. | 1.2 | 27 |
| 43 | Investigating Low-Dose Image Quality in Whole-Body Pediatric ¹⁸ F-FDG Scans Using Time-of-Flight PET/MRI. Journal of Nuclear Medicine, 2021, 62, 123-130. | 2.8 | 22 |
| 44 | Comparison of List-Mode and DIRECT Approaches for Time-of-Flight PET Reconstruction. IEEE Transactions on Medical Imaging, 2012, 31, 1461-1471. | 5.4 | 21 |
| 45 | Design and Performance of a High Spatial Resolution, Time-of-Flight PET Detector. IEEE Transactions on Nuclear Science, 2014, 61, 1092-1098. | 1.2 | 20 |
| 46 | Time of Flight Coincidence Timing Calibration Techniques Using Radioactive Sources. , 0, , . | | 19 |
| 47 | Impact of event positioning algorithm on performance of a whole-body PET scanner using one-to-one coupled detectors. Physics in Medicine and Biology, 2018, 63, 055008. | 1.6 | 18 |
| 48 | Time of Flight in Perspective: Instrumental and Computational Aspects of Time Resolution in Positron Emission Tomography. IEEE Transactions on Radiation and Plasma Medical Sciences, 2021, 5, 598-618. | 2.7 | 18 |
| 49 | Count-Rate Dependent Event Mispositioning and NEC in PET. IEEE Transactions on Nuclear Science, 2004, 51, 41-45. | 1.2 | 17 |
| 50 | Image-Based Modeling of PSF Deformation With Application to Limited Angle PET Data. IEEE Transactions on Nuclear Science, 2016, 63, 2599-2606. | 1.2 | 17 |
| 51 | Evaluation of pixelated NaI(Tl) detectors for PET. IEEE Transactions on Nuclear Science, 2003, 50, 24-31. | 1.2 | 16 |
| 52 | PET instrumentation. Radiologic Clinics of North America, 2004, 42, 1003-1016. | 0.9 | 13 |
| 53 | Performance of a GSO brain PET camera. , 0, , . | | 12 |
| 54 | Timing and Energy Resolution of New Near-UV SiPMs Coupled to ${}^m\text{LaBr}_3$ & Ce for TOF-PET. IEEE Transactions on Nuclear Science, 2014, 61, 2426-2432. | 1.2 | 12 |

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| 55 | Improved image quality using monolithic scintillator detectors with dual-sided readout in a whole-body TOF-PET ring: a simulation study. <i>Physics in Medicine and Biology</i> , 2017, 62, 2018-2032. | 1.6 | 12 |
| 56 | Signal analysis for improved timing resolution with scintillation detectors for TOF PET imaging. , 2010, , . | | 11 |
| 57 | Numerical observer study of lesion detectability for a long axial field-of-view whole-body PET imager using the PennPET Explorer. <i>Physics in Medicine and Biology</i> , 2020, 65, 035002. | 1.6 | 11 |
| 58 | Slotted surface treatment of position-sensitive NaI(Tl) detectors to improve detector performance. <i>IEEE Transactions on Nuclear Science</i> , 2001, 48, 2418-2423. | 1.2 | 10 |
| 59 | A count-rate model for PET scanners using pixelated Anger-logic detectors with different scintillators. <i>Physics in Medicine and Biology</i> , 2005, 50, 5697-5715. | 1.6 | 9 |
| 60 | Performance Assessment of Pixelated LaBr3 Detector Modules for TOF PET. , 0, , . | | 8 |
| 61 | An investigation of waveform sampling for improved signal processing in TOF PET. , 2008, , . | | 8 |
| 62 | Improved Spatial Resolution in PET Scanners Using Sampling Techniques. <i>IEEE Transactions on Nuclear Science</i> , 2009, 56, 596-601. | 1.2 | 8 |
| 63 | Characterization of Monolithic Scintillation Detectors Etched With Laser Induced Optical Barriers. <i>IEEE Transactions on Radiation and Plasma Medical Sciences</i> , 2019, 3, 531-537. | 2.7 | 8 |
| 64 | Performance measurements for the GSO-based brain PET camera (G-PET). , 0, , . | | 7 |
| 65 | Count-rate dependent event mispositioning and NEC in PET. , 0, , . | | 7 |
| 66 | Evaluation of local PMT triggering electronics for a TOF-PET scanner. , 2008, , . | | 7 |
| 67 | Application of a Generalized Scan Statistic Model to Evaluate TOF PET Images. <i>IEEE Transactions on Nuclear Science</i> , 2011, 58, 99-104. | 1.2 | 7 |
| 68 | Comparison of multi-pole shaping and delay line clipping pre-amplifiers for position sensitive NaI(Tl) detectors. <i>IEEE Transactions on Nuclear Science</i> , 1998, 45, 1138-1143. | 1.2 | 5 |
| 69 | Investigation of lanthanum scintillators for 3D PET. , 0, , . | | 5 |
| 70 | Investigation of LaBr/sub 3/ Detector Timing Resolution. , 0, , . | | 5 |
| 71 | Efficient 3D TOF PET Reconstruction Using View-Grouped Histo-Images: DIRECT - Direct Image Reconstruction for TOF. , 2006, , . | | 5 |
| 72 | Comparison of list-mode and DIRECT approaches for time-of-flight PET reconstruction. , 2010, , . | | 5 |

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| 73 | Development of a high-resolution and depth-of-interaction capable detector for time-of-flight PET. , 2011, , . | | 5 |
| 74 | Design optimization of a dedicated breast PET scanner using TOF imaging in a partial ring geometry. , 2011, , . | | 5 |
| 75 | GATE simulations to study extended axial FOVs for the PennPET Explorer scanner. , 2017, , . | | 5 |
| 76 | Attenuation correction in a combined, single-gantry breast PET-Tomosynthesis scanner. , 2018, , . | | 5 |
| 77 | Data-driven, energy-based method for estimation of scattered events in positron emission tomography. Physics in Medicine and Biology, 2022, 67, 095010. | 1.6 | 5 |
| 78 | The effects of pulse pile-up on point-source measurements performed on different PET scanning devices. , 0, , . | | 3 |
| 79 | A modular waveform-sampling data acquisition system for time-of-flight PET. , 2018, , . | | 3 |
| 80 | Total-body PET is ready for prime time. Medical Physics, 2021, 48, 3-6. | 1.6 | 3 |
| 81 | A Proof-of-Concept Study of an In-Situ Partial-Ring Time-of-Flight PET Scanner for Proton Beam Verification. IEEE Transactions on Radiation and Plasma Medical Sciences, 2021, 5, 694-702. | 2.7 | 3 |
| 82 | Development of pixelated NaI(Tl) detectors for PET. , 0, , . | | 2 |
| 83 | Image quality assessment of LaBr/sub 3/ based 3D PET scanners. , 0, , . | | 2 |
| 84 | Thick continuous crystal design for PET. , 2008, , . | | 2 |
| 85 | Reduction in variability of clinical lesion quantification with TOF-PET imaging. , 2010, , . | | 2 |
| 86 | Evaluation of image Signal-to-Noise Ratio in Time-of-Flight PET. , 2011, , . | | 2 |
| 87 | Initial imaging results from a high spatial-resolution time-of-flight PET detector designed for dedicated breast imaging. , 2013, , . | | 2 |
| 88 | Current Status of PET Technology. , 2020, , 3-14. | | 2 |
| 89 | Slotted surface treatment on position-sensitive NaI(Tl) detectors to improve spatial resolution. , 0, , . | | 1 |
| 90 | Performance measurements of a pixelated NaI(Tl) PET scanner. , 0, , . | | 1 |

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|-----|---|------|-----------|
| 91 | Evaluation of a fully 3D, big bore TOF PET scanner with reduced scatter shields. , 2009, , . | | 1 |
| 92 | Comparison of image Signal-to-Noise Ratio and Noise Equivalent Counts in Time-of-Flight PET. , 2010, , . | | 1 |
| 93 | Characterizing the spatial resolution performance of continuous & thick LYSO crystals. , 2011, , . | | 1 |
| 94 | Evaluation of the imaging performance of continuous detectors etched with laser induced optical barriers. , 2016, , . | | 1 |
| 95 | Spatially-Variant Image-Based Modeling of PSF Deformations with Application to Limited Angle Dual-Panel Breast-PET Data. , 2018, , . | | 1 |
| 96 | PET/MRI for Primary Breast Cancer: A Match Made Better by PET Quantification?. Radiology Imaging Cancer, 2021, 3, e200150. | 0.7 | 1 |
| 97 | Reconstruction-free positron emission imaging. Nature Photonics, 2021, 15, 873-874. | 15.6 | 1 |
| 98 | A-PET: a high sensitivity animal PET camera. , 0, , . | | 0 |
| 99 | Investigation of a High-Resolution Detector for Whole-Body PET Imaging. , 0, , . | | 0 |
| 100 | Imaging Studies for Evaluating Impact of Position Sampling Techniques in PET Scanners. IEEE Transactions on Nuclear Science, 2010, 57, 2497-2503. | 1.2 | 0 |
| 101 | Continuous LYSO-SSPM array based PET detectors for clinical and small volume imaging studies. , 2011, , . | | 0 |
| 102 | ROCSTAR: Data acquisition electronics for TOF PET. , 2014, , . | | 0 |
| 103 | Image-based modeling of PSF deformation with application to limited angle PET data. , 2015, , . | | 0 |
| 104 | SU-GG-J-145: PET Image Simulation of Isotopes Produced in Patient during Proton Therapy. Medical Physics, 2010, 37, 3179-3179. | 1.6 | 0 |