

Hugo Bouchard

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

45
papers

1,155
citations

18
h-index

33
g-index

48
ext. papers

1,376
ext. citations

3.9
avg, IF

4.73
L-index

| # | Paper | IF | Citations |
|----|---|-----|-----------|
| 45 | Eigencolor radiochromic film dosimetry. <i>Medical Physics</i> , 2021 , 48, 2592-2603 | 4.4 | 0 |
| 44 | Reference dosimetry of modulated and dynamic photon beams. <i>Physics in Medicine and Biology</i> , 2021 , 65, 24TR05 | 3.8 | |
| 43 | Electron density and effective atomic number estimation in a maximum a posteriori framework for dual-energy computed tomography. <i>Medical Physics</i> , 2020 , 47, 4137-4149 | 4.4 | 4 |
| 42 | Parametrization of multi-energy CT projection data with eigentissue decomposition. <i>Physics in Medicine and Biology</i> , 2020 , 65, 155001 | 3.8 | 0 |
| 41 | Alanine dosimetry in strong magnetic fields: use as a transfer standard in MRI-guided radiotherapy. <i>Physics in Medicine and Biology</i> , 2020 , 65, 115001 | 3.8 | 5 |
| 40 | Quantitative imaging performance of MARS spectral photon-counting CT for radiotherapy. <i>Medical Physics</i> , 2020 , 47, 3423-3434 | 4.4 | 3 |
| 39 | Small-cavity chamber dose response in megavoltage photon beams coupled to magnetic fields. <i>Physics in Medicine and Biology</i> , 2020 , 65, 245008 | 3.8 | 2 |
| 38 | The influence of nuclear interactions on ionization chamber perturbation factors in proton beams: FLUKA simulations supported by a Fano test. <i>Medical Physics</i> , 2019 , 46, 885-891 | 4.4 | 8 |
| 37 | The potential of photon-counting CT for quantitative contrast-enhanced imaging in radiotherapy. <i>Physics in Medicine and Biology</i> , 2019 , 64, 115020 | 3.8 | 7 |
| 36 | Influence of intravenous contrast agent on dose calculation in proton therapy using dual energy CT. <i>Physics in Medicine and Biology</i> , 2019 , 64, 125024 | 3.8 | 11 |
| 35 | The effect of magnetic field strength on the response of Gafchromic EBT-3 film. <i>Physics in Medicine and Biology</i> , 2019 , 64, 06NT03 | 3.8 | 17 |
| 34 | Dosimetric impact of dual-energy CT tissue segmentation for low-energy prostate brachytherapy: a Monte Carlo study. <i>Physics in Medicine and Biology</i> , 2018 , 63, 025013 | 3.8 | 14 |
| 33 | Robust quantitative contrast-enhanced dual-energy CT for radiotherapy applications. <i>Medical Physics</i> , 2018 , 45, 3086-3096 | 4.4 | 13 |
| 32 | Optimized I-values for use with the Bragg additivity rule and their impact on proton stopping power and range uncertainty. <i>Physics in Medicine and Biology</i> , 2018 , 63, 165007 | 3.8 | 20 |
| 31 | Unsupervised classification of tissues composition for Monte Carlo dose calculation. <i>Physics in Medicine and Biology</i> , 2018 , 63, 15NT01 | 3.8 | 1 |
| 30 | Comment on "Methodological accuracy of image-based electron-density assessment using dual-energy computed tomography" [Med. Phys. 44 (6), 2429-2437 (2017)]. <i>Medical Physics</i> , 2018 , 45, 2345-2348 | 4.4 | 1 |
| 29 | Experimental validation of two dual-energy CT methods for proton therapy using heterogeneous tissue samples. <i>Medical Physics</i> , 2018 , 45, 48-59 | 4.4 | 49 |

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| 28 | The impact of dual- and multi-energy CT on proton pencil beam range uncertainties: a Monte Carlo study. <i>Physics in Medicine and Biology</i> , 2018 , 63, 195012 | 3.8 | 10 |
| 27 | The potential of dual-energy CT to reduce proton beam range uncertainties. <i>Medical Physics</i> , 2017 , 44, 2332-2344 | 4.4 | 74 |
| 26 | Efficiency improvement in proton dose calculations with an equivalent restricted stopping power formalism. <i>Physics in Medicine and Biology</i> , 2017 , 63, 015019 | 3.8 | 1 |
| 25 | Assessing lung function using contrast-enhanced dual-energy computed tomography for potential applications in radiation therapy. <i>Medical Physics</i> , 2017 , 44, 5260-5269 | 4.4 | 18 |
| 24 | A Bayesian approach to solve proton stopping powers from noisy multi-energy CT data. <i>Medical Physics</i> , 2017 , 44, 5293-5302 | 4.4 | 20 |
| 23 | Extension of the Fermi-Eyges most-likely path in heterogeneous medium with prior knowledge information. <i>Physics in Medicine and Biology</i> , 2017 , 62, 9207-9219 | 3.8 | 12 |
| 22 | Experimental and Monte Carlo studies of fluence corrections for graphite calorimetry in low- and high-energy clinical proton beams. <i>Medical Physics</i> , 2016 , 43, 4122 | 4.4 | 8 |
| 21 | A general method to derive tissue parameters for Monte Carlo dose calculation with multi-energy CT. <i>Physics in Medicine and Biology</i> , 2016 , 61, 8044-8069 | 3.8 | 45 |
| 20 | Lorentz force correction to the Boltzmann radiation transport equation and its implications for Monte Carlo algorithms. <i>Physics in Medicine and Biology</i> , 2015 , 60, 4963-71 | 3.8 | 16 |
| 19 | Detector dose response in megavoltage small photon beams. II. Pencil beam perturbation effects. <i>Medical Physics</i> , 2015 , 42, 6048-61 | 4.4 | 43 |
| 18 | Reference dosimetry in the presence of magnetic fields: conditions to validate Monte Carlo simulations. <i>Physics in Medicine and Biology</i> , 2015 , 60, 6639-54 | 3.8 | 15 |
| 17 | Detector dose response in megavoltage small photon beams. I. Theoretical concepts. <i>Medical Physics</i> , 2015 , 42, 6033-47 | 4.4 | 70 |
| 16 | A stoichiometric calibration method for dual energy computed tomography. <i>Physics in Medicine and Biology</i> , 2014 , 59, 2059-88 | 3.8 | 96 |
| 15 | A theoretical comparison of tissue parameter extraction methods for dual energy computed tomography. <i>Medical Physics</i> , 2014 , 41, 081905 | 4.4 | 19 |
| 14 | A Fano cavity test for Monte Carlo proton transport algorithms. <i>Medical Physics</i> , 2014 , 41, 011706 | 4.4 | 14 |
| 13 | A theoretical re-examination of Spencer-Attix cavity theory. <i>Physics in Medicine and Biology</i> , 2012 , 57, 3333-58 | 3.8 | 14 |
| 12 | On charged particle equilibrium violation in external photon fields. <i>Medical Physics</i> , 2012 , 39, 1473-80 | 4.4 | 16 |
| 11 | Comment on "linearization of dose-response curve of the radiochromic film dosimetry system" [Med. Phys. 39(8), 4850-4857 (2012)]. <i>Medical Physics</i> , 2012 , 39, 7171-2; author reply 7173-4 | 4.4 | 1 |

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| 10 | Reference dosimetry using radiochromic film. <i>Journal of Applied Clinical Medical Physics</i> , 2012 , 13, 3994 | 2.3 | 33 |
| 9 | Quality correction factors of composite IMRT beam deliveries: theoretical considerations. <i>Medical Physics</i> , 2012 , 39, 6885-94 | 4.4 | 3 |
| 8 | GPUMCD: A new GPU-oriented Monte Carlo dose calculation platform. <i>Medical Physics</i> , 2011 , 38, 754-64 | 4.4 | 137 |
| 7 | Validation of an electron Monte Carlo dose calculation algorithm in the presence of heterogeneities using EGSnrc and radiochromic film measurements. <i>Journal of Applied Clinical Medical Physics</i> , 2011 , 12, 3392 | 2.3 | 15 |
| 6 | A Monte Carlo method to evaluate the impact of positioning errors on detector response and quality correction factors in nonstandard beams. <i>Physics in Medicine and Biology</i> , 2011 , 56, 2617-34 | 3.8 | 19 |
| 5 | Investigation of three radiation detectors for accurate measurement of absorbed dose in nonstandard fields. <i>Medical Physics</i> , 2010 , 37, 2404-13 | 4.4 | 24 |
| 4 | Potential errors in optical density measurements due to scanning side in EBT and EBT2 Gafchromic film dosimetry. <i>Medical Physics</i> , 2010 , 37, 1565-70 | 4.4 | 46 |
| 3 | Ionization chamber gradient effects in nonstandard beam configurations. <i>Medical Physics</i> , 2009 , 36, 4654-63 | 4.3 | 61 |
| 2 | On the characterization and uncertainty analysis of radiochromic film dosimetry. <i>Medical Physics</i> , 2009 , 36, 1931-46 | 4.4 | 84 |
| 1 | Ionization chamber-based reference dosimetry of intensity modulated radiation beams. <i>Medical Physics</i> , 2004 , 31, 2454-65 | 4.4 | 86 |