

# PUBLICATIONS IMXGAM – 13 DEC 2018

## article

2010

1. Repeated Imaging of Lung Cancer Development Using PIXSCAN, a Low Dose Micro-CT Scanner Based on XPAD Hybrid Pixel Detectors, F. Debarbieux *et al.*, IEEE T. Nucl. Sci 57 (2010) 242-245
2. PIXSIC: A Pixellated Beta-Microprobe for Kinetic Measurements of Radiotracers on Awake and Freely Moving Small Animals, J. Godart *et al.*, IEEE T. Nucl. Sci 57 (2010) 998-1007
3. Real time monitoring of the Bragg-Peak position in ion therapy by means of single photon detection, M. Testa *et al.*, Radiat. Environ. Bioph 49 (2010) 337-43
4. Detective quantum efficiency, modulation transfer function and energy resolution comparison between CdTe and silicon sensors bump-bonded to XPAD3S, K. Medjoubi *et al.*, J. Synchrotron Radiat 17 (2010) 486-495

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1. GATE V6: a Major Enhancement of the GATE Simulation Platform Enabling Modelling of CT and Radiotherapy, S. Jan *et al.*, Phys. Med. Biol 56 (2011) 881-901
2. Neutron Imaging with the XPAD3-s Hybrid Pixel Detector, F. Cassol Brunner *et al.*, Nucl. Instrum. Meth. A 634 (2011) 85-90
3. New Concept of a Submillimetric Pixellated Silicon Detector for Intracerebral Application, M. Benoit *et al.*, Nucl. Instrum. Meth. A 659 (2011) 499-503

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1. Some Proximal Methods for Poisson Intensity CBCT and PET, S. Anthoine *et al.*, Inverse Probl. Imag 6 (2012) 565-598
2. Combined two-photon laser-scanning microscopy and spectral microCT X-ray imaging to characterize the cellular signature and evolution of microstroke foci. Rom, F. Kirchhoff *et al.*, Rom. J. Morphol. Embryo 53 (2012) 671-675

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1. First K-Edge Imaging With a Micro-CT Based on the XPAD3 Hybrid Pixel Detector, F. Cassol Brunner *et al.*, IEEE T. Nucl. Sci 60 (2013) 103-108
2. A wireless beta-microprobe based on pixelated silicon for in vivo brain studies in freely moving rats, J. Märk *et al.*, Phys. Med. Biol 58 (2013) 4483-4500

3. Geant4-based Monte Carlo simulations on GPU for medical applications, J. Bert *et al.*, *Phys. Med. Biol* 58 (2013) 5593-5611

2014

1. Comparison of three types of XPAD3.2/CdTe single chip hybrids for hard X-ray applications in material science and biomedical imaging, C. Buton *et al.*, *Nucl. Instrum. Meth. A* 758 (2014) 44-56

2015

1. PIXSIC, a Pixelated beta+ - Sensitive Probe for Radiopharmacological Investigations in Rat Brain: Binding Studies with <sup>18</sup>F-MPPF., L. Balasse *et al.*, *Mol. Imaging Biol* 17(2) (2015) 163-167
2. PIXSIC: a wireless intracerebral radiosensitive probe in freely moving rats, L. Balasse *et al.*, *Mol. Imaging* 14(43) (2015) 5497-5511
3. K-edge imaging with the XPAD3 hybrid pixel detector, direct comparison of CdTe and Si sensors, F. Cassol *et al.*, *Phys. Med. Biol* 60 (2015) 5497-5511

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1. Characterization of the imaging performance of a micro-CT system based on the photon counting XPAD3/Si hybrid pixel detectors, F. Cassol *et al.*, *Biomed. Phys. Eng. Express* 2 (2016) 025003

## acte de conférence

2010

1. Study of the charge sharing effect in the photon - counting pixel detector XPAD3-S, F. Cassol-Brunner, D. Benoit, J.-F. Bézar, J.-C. Clémens, C. Morel, *Nucl. Instrum. Meth. A*, 633, 11th International Workshop on Radiation Imaging Detectors (IWorID'09) (2010) S111-S113, Prague, Czech Republic, 28 Jun - 2 Jul 2009
2. Development of a PCI Express based Readout Electronics for the XPAD3 X-ray Photon Counting Imager, A. Dawiec, B. Dinkespiler, P. Breugnon, F. Bompard, K. Arnaud, P.-Y. Duval, S. Godiot, S. Hustache, K. Medjoubi, J.-F. Bézar, N. Boudet, C. Morel, indéfini, 17th Real-Time Conference on Real-Time Computer Applications in Nuclear (2010), Lisbonne, Portugal, 24-28 May 2010

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1. Performances and Applications of the CdTe- and Si-XPAD3 Photon Counting 2D Detector, K. Medjoubi, S. Hustache, F. Picca, J.F. Bézar, N. Boudet, F. Bompard, P. Breugnon, J.-C. Clémens, A. Dawiec, P. Delpierre, B. Dinkespiler, S. Godiot, J.-P. Logier, M. Menouni, C. Morel, M. Niclas, P. Pangaud, E. Vigeolas, *J. Instrum.*, 6, 12th International Workshop on Radiation Imaging Detectors (iWoRiD 2010) (2011) C01080, Cambridge, United Kingdom, 11-15 Jul 2010

2. On the efficiency of proximal methods for CBCT and PET, S. Anthoine, J.-F. Aujol, Y. Boursier, C. Mélot, IEEE Conf. Publications, IICIP 2011 : 2011 IEEE International Conference on Image Processing (2011), Bruxelles, Belgium, 11-14 Sep 2011
3. New Concept of a Submillimetric Pixelated Silicon Detector for in Vivo Brain Studies in Freely Moving Rodents, J. Maerk, D. Benoit, M. Benoit, J.-C. Clémens, S. Fieux, D. Fougeron, B. Janvier, M. Jevaud, A. Genoux, P. Gisquet-Verrier, F. Lefebvre, M. Menouni, F. Pain, C. Tourvielle, P. Weiss, L. Zimmer, C. Morel, P. Lanièce, indéfini, WMIC'2011, World Molecular Imaging Congress (2011) 606, San Diego, United States, 7-10 Sep 2011
4. Some Proximal Methods for Poisson Intensity CBCT and PET, S. Anthoine, J. F. Aujol, Y. Boursier, C. Mélot, SPIE, 8138, Wavelets and Sparsity XIV (2011) pages, San Diego, California, United States, 21-24 Oct 2011
5. Développement de Détecteurs à Pixels Hybrides pour le Comptage de Rayons X : une Ouverture vers la Tomodensitométrie Spectrale, C. Morel, F. Debarbieux, M. Schmutz, 12ème Colloque de la Société Française des Microscopies (2011) 197-200, Strasbourg, France, 27 Jun - 1 Jul 2011
6. Towards ps and fs Diffraction with XPAD Detector, S. Hustache, J.-C. Clémens, C. Laulhé, K. Medjoubi, S. Ravy, indéfini, 13th International Workshop on Radiation Imaging Detectors (2011), Zurich, Switzerland, 3-7 Jul 2011
7. Comparison of K-Edge Versus Standard Absorption Imaging Using the XPAD3 Hybrid Pixel Detector, F. Cassol Brunner, C. Kronland-Martinnet, A. Bonissent, Y. Boursier, J.-C. Clémens, M. Dupont, H. Ouamara, F. Debarbieux, C. Morel, IEEE Nucl. Sci. Symp. Conf, volume, Nuclear Science Symposium and Medical Imaging Conference 2011 (2011) 3454-3458, Valence, Spain, 23-29 Oct 2011
8. Implementing Geant4 on GPU for Medical Applications, H. Perez-Ponce, Z. El bitar, Y. Boursier, D. Vintache, A. Bonissent, C. Morel, D. Brasse, D. Visvikis, J. Bert, IEEE Nucl. Sci. Symp. Conf, Nuclear Science Symposium and Medical Imaging Conference 2011 (2011) 2703-2707, Valence, Spain, 23-29 Oct 2011

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1. Comparison of the performance of the photon counting hybrid pixel camera XPAD3 versus the CCD camera DALSA XR-4 for cone-beam micro-CT, H. Ouamara, F. Cassol Brunner, A. Bonissent, Y. Boursier, C. Kronland-Martinnet, J.-C. Clemens, M. Dupont, F. Debarbieux, C. Morel, IEEE Conf. Publications, volume, 2012 Nuclear Science Symposium, Medical Imaging Conference Workshop on Room-Temperature Semiconductor X-Ray and Gamma-Ray Detectors (2012) 3756 - 3759, Anaheim, Californie, United States, 29 Oct - 3 Nov 2012
2. Hybrid GATE: A GPU/CPU implementation for imaging and therapy applications, J. Bert, H. Perez-Ponce, S. Jan, Z. El Bitar, P. Gueth, V. Cuplov, H. Chekatt, D. Benoit, D. Sarrut, Y. Boursier, D. Brasse, I. Buvat, C. Morel, D.

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1. A data acquisition system for medical imaging, C. Abellan, J.-P. Cachemiche, F. Réthoré, C. Morel, IEEE Conf. Publications, ANIMMA'2013, International Conference on Advancements in Nuclear Instrumentation, Measurement Methods and their Applications (2013), Marseille, France, 23-27 Jun 2013
2. PIXSIC, a wireless radiosensitive intracerebral probe to monitor PET radiotracers in anaesthetized and awake rat, L. Balasse, J. Maerk, S. Fieux, F. Pain, P. Gisquet, C. Morel, L. Zimmer, P. Lanière, Eur. J. Nucl. Med. Mol. I, Annual Congress of the Eur. Ass. of Nucl. Med. (EANM) (2013), Lyon, France, 19-23 Oct 2013
3. Component separation for spectral X-ray imaging using the XPAD3 hybrid pixel camera, M. Dupont, Y. Boursier, A. Bonissent, F. Galland, F. Cassol, C. Kronland-Martinet, C. Morel, IEEE Conf. Publications, NSS/MIC'2013, IEEE Nuclear Science Symposium and Medical Imaging Conference (2013), Seoul, South Korea, 27 Oct - 02 Nov 2013

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1. Development of K-Edge Spectral Tomography Using XPAD3 Composite Pixels, C. Kronland-Martinet, F. Cassol, A. Bonissent, Y. Boursier, M. Dupont, C. Morel, F. Debarbieux, IEEE Int. Conf, NSS/MIC'2014, IEEE Nuclear Science Symposium and Medical Imaging Conference (2014) 7430846, Seattle, Washington State, United States, 8-15 Nov 2014

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1. A large area XPAD hybrid pixel detector with Cadmium Telluride sensor for high energy experiments, S. Hustache, A. Dawiec, N. Blanc, F. Bompard, N. Boudet, Y. Boursier, C. Buton, F. Cassol, J.-C. Clémens, F. Debarbieux, P. Delpierre, M. Dupont, J. Graber-Bolis, C. Kronland-Martinet, C. Morel, H. Perez-Ponce, L. Portal, E. Vigeolas, indéfini, SRI'2015, 12th International Conference on Synchrotron Radiation Instrumentation (2015), New York, United States, 6-10 Jul 2015
2. A large surface X-ray camera based on XPAD3-CdTe single chip hybrids, F. Cassol, N. Blanc, F. Bompard, N. Boudet, Y. Boursier, C. Buton, J.-C. Clémens, A. Dawiec, F. Debarbieux, P. Delpierre, M. Dupont, J. Graber-Bolis, S. Hustache, C. Morel, H. Perez-Ponce, L. Portal, E. Vigeolas, J. Instrum, 10, 17th iWoRiD International Workshop on Radiation Imaging Detectors (2015) C11010, Hamburg, Germany, 8 Jun - 2 Jul 2015

3. The ClearPET/XPAD prototype: development of a simultaneous PET/CT scanner for mice., M. Hamonet, M. Dupont, T. Fabiani, F. Cassol, Y. Boursier, A. Bonissent, F. Debarbieux, L. Bidaut, C. Morel, indéfini, NSS/MIC'2015, IEEE Nuclear Science Symposium and Medical Imaging Conference (2015), San Diego, United States, 31 Oct - 7 Nov 2015
4. Monte-Carlo simulation based estimation of NECR, sensitivity, and spatial resolution of a novel preclinical PET insert for MR, R. Becker, J.-P. Cachemiche, C. Casella, G. Dissertori, M. Dröge, J. Fischer, C. Haller, A.S. Howard, K. Kramer, W. Lustermann, C. Morel, J.O. Oliver, U. Röser, Q. Wang, B. Weber, indéfini, NSS/MIC'2015, IEEE Nuclear Science Symposium and Medical Imaging Conference (2015), San Diego, United States, 31 Oct - 7 Nov 2015
5. Development of a Compton camera for medical applications based on silicon strip and scintillation detectors, J. Krimmer, J. Ley, C. Abellan, J. Cachemiche, L. Caponetto, X. Chen, M. Dahoumane, D. Dauvergne, N. Freud, B. Joly, D. Lambert, L. Lestand, J. Létang, M. Magne, H. Mathez, V. Maxim, G. Montarou, C. Morel, M. Pinto, C. Ray, V. Reithinger, E. Testa, Y. Zoccarato, Nucl. Instrum. Meth. A, 787, (2015) 98-101, indéfini,

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1. MAPSSIC, a novel CMOS intra-cerebral beta+ probe for deep brain imaging in awake and freely moving rat: a Monte Carlo study, L. Ammour, J. Heymes, M. Bautista, S. Fieux, F. Gensolen, M. Kachel, F. Lefebvre, F. Pain, P. Pangaud, L. Pinot, J. Baudot, P. Gisquet-Verrier, P. Laniece, C. Morel, L. Zimmer, M.-A. Verdier, IEEE Conf. Proceedings, IEEE NSS/MIC 2016 (2016), Strasbourg, France, 29 Nov - 5 Dec 2016
2. Temporal imaging: observation and localization of a Compton effect inside a 20 mm monolithic LYSO plate with a Philips Digital Si-PM, A. Iltis, H. Snoussi, L. Rodriguez de Magalhaes, C. Morel, IEEE Conf. Proceedings, IEEE NSS/MIC 2016 (2016), Strasbourg, France, 29 Nov - 5 Dec 2016
3. Simultaneous reconstruction and separation in a spectral CT framework, S. Tairi S. Anthoine, C. Morel, Y. Boursier, IEEE Conf. Proceedings, IEEE NSS/MIC 2016 (2016), Strasbourg, France, 29 Oct - 5 Nov 2016
4. IMIC - Needle-shaped low-power monolithic active pixel sensors for molecular neuroimaging on awake and freely moving rats, J. Heymes, L. Ammour, M. Bautista, G. Bertolone, S. Fieux, F. Gensolen, M. Goffe, F. Guezzi-Messaoud, C. Hu-Guo, M. Kachel, F. Lefebvre, F. Pain, P. Pangaud, L. Pinot, P. Gisquet, P. Laniece, C. Morel, M.-A. Verdier, M. Winter, L. Zimmer, J. Baudot, IEEE Conf. Proceedings, IEEE NSS/MIC 2016 (2016), Strasbourg, France, 29 Nov - 5 Dec 2016

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1. Simulation Results for PLATO: A Prototype Hybrid X-Ray Photon Counting Detector with a Low Energy Threshold for Fusion Plasma Diagnostics, A. Habib, M. Menouni, P. Pangaud, C. Fenzi, G. Colledani, G. Moureau,

A. Escarguel, C. Morel, J. Instrum, 12, 18th International Workshop on Radiation Imaging Detectors 2016 (2017) C01036, Barcelona, Spain, 3-7 Jul 2016

2. Design and characterization of pixelated needle probe for molecular neuroimaging on awake and freely moving rats, J. Heymes, L. Ammour, M. Bautista, G. Bertolone, A. Dorokhov, S. Fieux, Fabrice Gensolen, Mathieu Goffe, Christine Guo Hu, M. Kachel, F. Lefèbvre, F. Pain, P. Pangaud, L. Pinot, M. Winter, P. Gisquet-Verrier, Ph. Lanière, C. Morel, M.-A. Verdier, L. Zimmer, J. Baudot, indéfini, PSD'11, 11th International Conference on Position Sensitive Detectors (2017), Milton Keynes, United States, 3-8 Sep 2017
3. A data acquisition system for a beam-tagging hodoscope used in hadrontherapy monitoring, X. Chen, J.-P. Cachemiche, C. Caplan Cheble Pimenta, L. Caponetto, D. Dauvergne, R. Della Negra, M. Fontana, G.-N. Lu, C. Morel, M. Rodo Bordera, E. Testa, Y. Zoccarato, IEEE Conf. Proceedings, IEEE Nuclear Science Symposium and Medical Imaging Conference (2017), Atlanta, United States, 21-28 Oct 2017

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1. Temporal Imaging CeBr3 Compton camera: a new concept for nuclear decommissioning and nuclear waste management, A. Iltis, H. Snoussi, L. Rodrigues de Magalhaes, M.Z. Hmissi, C. Tata Zafarifety, G. Zeufack, Tadonkeng, C. Morel, EPJ. Web. Conf., 170, ANIMMA'2017, International Conference on Advancements in Nuclear Instrumentation, Measurement Methods and their Applications (2018), Liège, Belgium, 19-23 Jun 2017

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1. Development of a PCI Express based Readout Electronics for the XPAD3 X-ray Photon Counting Imager, **A. Dawiec**, B. Dinkespiler, P. Breugnon, F. Bompard, K. Arnaud, P.-Y. Duval, S. Godiot, S. Hustache, K. Medjoubi, J.-F. Bérrar, N. Boudet, C. Morel, 17th Real-Time Conference on Real-Time Computer Applications in Nuclear, Lisbonne, Portugal, 24-28 May 2010

2011

1. Développement de Détecteurs à Pixels Hybrides pour le Comptage de Rayons X : une Ouverture vers la Tomodensitométrie Spectrale, **C. Morel**, F. Debarbieux, 12ème Colloque de la Société Française des Microscopies, Strasbourg, France, 27 Jun - 1 Jul 2011
2. New Concept of a Submillimetric Pixelated Silicon Detector for in Vivo Brain Studies in Freely Moving Rodents, **J. Maerk**, D. Benoit, M. Benoit, J.-C. Clémens, S. Fieux, D. Fougeron, B. Janvier, M. Jevaud, A. Genoux, P.

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3. On the efficiency of proximal methods for CBCT and PET, S. Anthoine, J.-F. Aujol, **Y. Boursier**, C. Mélot, ICIP 2011 : 2011 IEEE International Conference on Image Processing, Bruxelles, Belgium, 11-14 Sep 2011
  4. A General Framework for Static and Dynamic Tomography with Regularity Constraints. Biomedical Application to Cone Beam Computerized Tomography (CBCT) and Positron Emission Tomography (PET). Astrophysical application to Solar Rotational Tomography (SRT)., **Y. Boursier**, ICIP 2011 : 2011 IEEE International Conference on Image Processing, Bruxelles, Belgium, 11-14 Sep 2011
  5. A General Framework for Static and Dynamic Tomography with Regularity Constraints, **Y. Boursier**, 2011 International Workshop on Biomedical and Astronomical Signal Processing (BASP) Frontiers Workshop, Villars, Switzerland, 4-9 Sep 2011
  6. Comparison of K-Edge Versus Standard Absorption Imaging Using the XPAD3 Hybrid Pixel Detector, **F. Cassol Brunner**, C. Kronland-Martinet, A. Bonissent, Y. Boursier, J.-C. Clémens, M. Dupont, H. Ouamara, F. Debardieux, C. Morel, Nuclear Science Symposium and Medical Imaging Conference 2011, Valence, Spain, 23-29 Oct 2011
  7. Implementing Geant4 on GPU for Medical Applications, **H. Perez-Ponce**, Z. El bitar, Y. Boursier, D. Vintache, A. Bonissent, C. Morel, D. Brasse, D. Visvikis, J. Bert, Nuclear Science Symposium and Medical Imaging Conference 2011, Valence, Spain, 23-29 Oct 2011

2012

1. Développement du CT spectral, une nouvelle modalité d'imagerie par rayons X intrinsèquement anatomo-fonctionnelle, **C. Morel**, 3ème Journée de la Recherche du Pôle Imagerie, Hôpital de la Timone, Marseille, France, 6 Apr 2012
2. Proximal Algorithms and CT: New Results on 3D Real Datas and Color CT, **Y. Boursier**, M. Dupont, S. Anthoine, J.-F. Aujol, C. Melot, SIAM Conference on Imaging Science 2012, Philadelphie, United States, 20-22 May 2012
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4. Comparison of the performance of the photon counting hybrid pixel camera XPAD3 versus the CCD camera DALSA XR-4 for cone beam micro-CT, **C. Morel**, Réunion Axe E « Imagerie et Radiothérapie », Cancéropôle PACA, Marseille, France, 7 Jun 2012

5. Study of the X-Ray Scattering in the Silicon and CdTe XPAD , P. Delpierre K. Medjoubi, S. Hustache, P. Mercère, S. Ravy, J.-C. Clémens, J.-F. Bézar, N. Boudet, B. Dinkespiler, A. Dawiec , Study of the X-Ray Scattering in the Silicon and CdTe XPAD, Coimbra , Portugal, 1-5 Jul 2012
6. Comparison of the performance of the photon counting hybrid pixel camera XPAD3 versus the CCD camera DALSA XR-4 for cone-beam micro-CT, **H. Ouamara**, F. Cassol Brunner, A. Bonissent, Y. Boursier, C. Kronland-Martinet, J.-C. Clemens, M. Dupont, F. Debarbieux, C. Morel, 2012 Nuclear Science Symposium, Medical Imaging Conference Workshop on Room- Temperature Semiconductor X-Ray and Gamma-Ray Detectors, Anaheim, Californie, United States, 29 Oct - 3 Nov 2012
7. Physical Characterization of a Wireless Radiotracer Detection System Based on Pixelated Silicon for in Vivo Brain Studies in Freely Moving Rats, J. Maerk, D. Benoit, L. Balasse, M. Benoit, J.-C. Clemens, S. Fieux, D. Fougeron, J. Graber-Bolis, B. Janvier, M. Jevaud, A. Genoux, P. Gisquet-Verrier, M. Menouni, F. Pain, L. Pinot, C. Tourvielle, L. Zimmer, **C. Morel**, P. Laniece, 2012 Nuclear Science Symposium, Medical Imaging Conference Workshop on Room- Temperature Semiconductor X-Ray and Gamma-Ray Detectors, Anaheim, Californie, United States, 29 Oct - 3 Nov 2012
8. Development of spectral X-ray CT using photon counting Hybrid Pixel detectors, **C. Morel**, European Microelectronics Summit 2012, Paris, France, 2-7 Nov 2012
9. Imagerie intravitale des ininteractions cellulaires dans le système nerveux central pathologique, F. Debarbieux, A. Bonissent, Y. Boursier, F. Cassol Brunner, J.-C. Clémens, M. Dupont, K. Fenrich, M. Hocine, C. Kronland-Martinet, H. Ouamara, C. Ricard, C. Morel, G. Rougon, IX ième Journée Scientifique BCP, Marseille, France, 3 Dec 2012
10. Intravital imaging of cellular interactions in the pathological central nervous system, **F. Debarbieux**, A. Bonissent, Y. Boursier, F. Cassol, J.-C. Clémens, M. Dupont, K. Fenrich, M. Hocine, C. Kronland-Martinet, C. Ricard, H. Houamara, C. Ricard, F. Stanchi, T. Rodriguez, P. Weber, C. Morel, G. Rougon, GDR interdisciplinaire, Marseille, France, 3 Dec 2012
11. Physical characterization of a wireless radiotracer detection system based on pixelated Silicon for in vivo brain studies in freely moving rats, **J. Maerk**, D. Benoit, L. Balasse, M. Benoit, J.-C. Clemens, S. Fieux, D. Fougeron, J. Graber-Bolis, B. Janvier, M. Jevaud, A. Genoux, P. Gisquet-Verrier, M. Menouni, F. Pain, C. Tourvielle, L. Zimmer, C. Morel, P. Laniece, IX ième Journée Scientifique BCP, Marseille, France, 3 Dec 2012

2013

1. Development of X-ray spectral CT using photon counting Hybrid Pixel detectors, **C. Morel**, Assemblée Générale du GDR MI2B, Strasbourg, France, 1-6 Apr 2013

2. Comparison of K-edge versus standard absorption imaging using the XPAD3 hybrid pixel detector, F. Cassol, C. Kronland-Martinet, A. Bonissent, Y. Boursier, J-C Clémens, M. Dupont, H. Ouamara, F. Debarbieux, P. Delpierre, C. Morel, 2nd international workshop on spectral CT imaging 2013, Genève, Switzerland, 21-25 Apr 2013
3. A data acquisition system for medical imaging, **C. Abellan**, J.-P. Cachemiche, F. Réthoré, C. Morel, ANIMMA'2013, International Conference on Advancements in Nuclear Instrumentation, Measurement Methods and their Applications, Marseille, France, 23-27 Jun 2013
4. Potential of the wireless radiosensitive intracerebral probe PIXSIC to monitor PET radiotracers in anaesthetized and awake rat, L. Balasse, J. Maerk, S. Fieux, F. Pain, A. Genoux, C. Morel, P. Gisquet-Verrier, L. Zimmer, P. Lanièce, WMIC'2013, World Molecular Imaging Congress, Savannah, Georgia, USA, Savannah, Georgia, United States, 18-21 Sep 2013
5. Component separation for spectral X-ray imaging using the XPAD3 hybrid pixel camera, **M. Dupont**, Y. Boursier, A. Bonissent, F. Galland, F. Cassol, C. Kronland-Martinet, C. Morel, NSS/MIC'2013, IEEE Nuclear Science Symposium and Medical Imaging Conference, Seoul, South Korea, 27 Oct - 02 Nov 2013

2014

1. Applications sociétales de la physique des particules au domaine de l'imagerie, **C. Morel**, Ecole IN2P3 d'instrumentation "de la physique au détecteur", Bénodet, France, 2-8 Feb 2014
2. Development of K-edge imaging using XPAD3 composite pixels, **C. Kronland-Martinet**, Workshop Spectral CT, Marseille, France, 2-7 May 2014
3. Component separation for spectral X-ray imaging using the XPAD3 hybrid pixel camera, M. Dupont, **Y. Boursier**, A. Bonissent, F. Cassol, C. Kronland-Martinet, F. Debarbieux, C. Morel, Workshop Spectral CT, Marseille, France, 2-7 May 2014
4. Development of a Compton Camera for medical applications based on SSD and scintillation detectors, J. Krimmer, J.-L. Ley, C. Abellan, J.-P. Cachemiche, L. Caponetto, X. Chen, M. Dahoumane, D. Dauvergne, N. Freud, B. Joly, D. Lambert, L. Lestand, J.M. Létang, M. Magne, H. Mathez, V. Maxim, G. Montarou, C. Morel, M. Pinto, C. Ray, V. Reithinger, E. Testa, Y. Zoccarato, NDIP'2014, 7th International Conference on New Developments in Photodetection, Tours, France, 30 Jun - 4 Jul 2014
5. About a few Challenges for Signal Processing in emission and transmission tomography, **C. Morel**, 2nd International Summer School on Intelligent Signal Processing for Frontier Research and Industry INFIERI'14, Paris, Paris, France, 14-25 Jul 2014
6. Tomographie spectrale à comptage de photons : imagerie au K-edge et séparation des composantes, **M. Dupont**, Deutsch-Französische Medizin Tagung, Paris, France, 26 Sep 2014

7. Les Principes de Base de la Tomographie Spectrale : Imagerie au K-edge et séparation des composantes, M. Dupont, Deutsch-Französische Tagung, Paris, France, 26 Sep 2014
8. Scanner spectral, C. Kronland-Martinet, P. Douek, Journée France Life Imaging, Journées Françaises de Radiologie (JFR), Paris, France, 16 Oct 2014

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1. Les pixels hybrides : des expériences du LHC à la tomographie spectrale du petit animal, C. Morel, XXIIIe Congrès Général de la Société Française de Physique, Strasbourg, France, 24-28 Aug 2015
2. A large surface X-ray camera based on XPAD3-CdTe single chip hybrids, F. Cassol, A. Dawiec, N. Blanc, F. Bompard, N. Boudet, Y. Boursier, C. Buton, J.-C. Clémens, F. Debarbieux, P. Delpierre, M. Dupont, J. Graber-Bolis, S. Hustache, C. Kronland-Martinet, H. Perez-Ponce, L. Portal, E. Vigeolas, C. Morel, 3rd Workshop on Medical Applications of Spectroscopic X-ray Detectors, Genève, Switzerland, 20-23 Apr 2015
3. A large surface X-ray camera based on XPAD3-CdTe single chip hybrids, F. Cassol, N. Blanc, F. Bompard, N. Boudet, Y. Boursier, C. Buton, J.-C. Clémens, A. Dawiec, F. Debarbieux, P. Delpierre, M. Dupont, J. Graber-Bolis, S. Hustache, C. Morel, H. Perez-Ponce, L. Portal, E. Vigeolas, 17th iWoRiD International Workshop on Radiation Imaging Detectors, Hamburg, Germany, 8 Jun - 2 Jul 2015
4. The ClearPET/XPAD prototype: development of a simultaneous PET/CT scanner for mice., M. Hamonet, M. Dupont, T. Fabiani, F. Cassol, Y. Boursier, A. Bonissent, F. Debarbieux, L. Bidaut, C. Morel, NSS/MIC'2015, IEEE Nuclear Science Symposium and Medical Imaging Conference, San Diego, United States, 31 Oct - 7 Nov 2015
5. Development of a micro-CT based on the XPAD3 chip for K-edge imaging of the mouse, C. Morel, 1st Spectral Photon Counting CT Workshop, Lyon, France, 7-8 Sep 2015

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1. Nuclear and CT imaging: what drives it?, C. Morel, MEDAMI'2016, Mediterranean Thematic Workshops in Advanced Molecular Imaging, Ajaccio, France, 1-5 May 2016
2. Nuclear and CT imaging: what drives it?, C. Morel, EMIM 2016, 11th Molecular Imaging Meeting, Utrecht, Netherlands, 8-10 Mar 2016
3. Nouveaux contrastes en imagerie X, C. Morel, F. Peyrin, CNIV'2016, 1er Congrès National d'Imagerie du Vivant, Paris, France, 10-12 Feb 2016
4. Implementation of a comprehensive model of a spectrometric chain using a Silicon photo-multiplier in Gate, M. Dupont, C. Morel, OpenGATE Technical Collaboration Meeting, Orsay, France, 31 Mar 2016

5. CT Performances of ClearPET/XPAD prototype, M. Hamonet, M. Dupont, T. Fabiani, F. Cassol, Y. Boursier, A. Bonissent, F. Debarbieux, L. Bidaut, C. Morel , 65th Crystal Clear Collaboration Meeting, Marseille, France, 7-8 Apr 2016
6. MAPSSIC, a novel CMOS intra-cerebral beta+ probe for deep brain imaging in awake and freely moving rat: a Monte Carlo study, L. Ammour, J. Heymes, M. Bautista, S. Fieux, F. Gensolen, M. Kachel, F. Lefebvre, F. Pain, P. Pangaud, L. Pinot, J. Baudot, P. Gisquet-Verrier, P. Laniece, C. Morel, L. Zimmer, M.-A. Verdier, IEEE NSS/MIC 2016, Strasbourg, France, 29 Nov - 5 Dec 2016
7. Détecteurs à pixels hybrides: de la recherche à l'industrialisation, P. Delpierre, B. Dinkespiler, C. Morel, Inventeurs à l'honneur, Palais de la Découverte, Paris, France, 23 Mar 2017
8. The Crystal Clear Collaboration and medical applications, **C. Morel**, K. Ziemons , 25th anniversary of the Crystal Clear Collaboration Symposium, Geneva, Switzerland, 24 Nov 2016
9. Simultaneous reconstruction and separation in a spectral CT framework, **S. Tairi**, C. Morel, Y. Boursier, S. Anthoine, DHU Imaging Workshop : Problématiques en Imagerie Médicale et méthodologies de résolution par traitement d'image, Marseille, France, 16 Dec 2016

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1. K-edge spectral tomography of preclinical lung tissue: energy calibration and image analysis within the prototype PIXSCAN-FLI, A. Ortega-Gil, M. Dupont, Y. Boursier, L. Portal, F. Cassol, C. Morel, 1st young Spanish Molecular Imaging Network meeting, Madrid, Spain, 30 Jan 2017
2. Monte Carlo simulation of a Compton camera for nuclear dismantling operations, **B. Mehadji**, C. Morel, 67th Crystal Clear Collaboration general meeting, Giessen, Germany, 16 Mar 2017
3. FAST Working Group 4 - Electronics DAQ, **C. Morel**, J. Varela, 3rd FAST Annual Meeting, Larnaca, Cyprus, 23-24 Mar 2017
4. Imagerie X spectrale : décomposition en base de matériaux par calibration polynomiale, N. Ducros, O. Pivot, S. Rit, J.-M. Létang, J. Abascal, Y. Boursier, M. Dupont, C. Morel, F. Peyrin, RITS' 2017, Recherche en Imagerie et Technologie pour la Santé, Lyon, France, 27-29 Mar 2017
5. Detectors for X-ray imaging, **C. Morel**, European School of Instrumentation in Particle Astroparticle Physics, ESIPAP'2017, Week 5: Detector Technologies Electronics, European Scientific Institute, Archamps, France, 20-24 Feb 2017
6. Optical simulation for the TEMPORAL project: study for scintillation photon detection time and SiPM modelisation, **M. Dupont**, C. Morel, OpenGATE Collaboration technical meeting, Clermont-Ferrand, France, 11 May 2017

7. PLATO: A low threshold X-ray photon counting detector prototype readout chip for spectroscopic imaging, **A. Habib**, M. Menouni, P. Pangaud, C. Morel, 4th Workshop on Medical Applications of Spectroscopic X-ray Detectors, Geneva, Switzerland, 15-18 May 2017
8. Temporal Imaging CeBr3 Compton camera: a new concept for nuclear decommissioning and nuclear waste management, A. Iltis, H. Snoussi, L. Rodrigues de Magalhaes, M.Z. Hmissi, C. Tata Zafiarifety, G. Zeufack, Tandonkeng, C. Morel, ANIMMA'2017, International Conference on Advancements in Nuclear Instrumentation, Measurement Methods and their Applications, Liège, Belgium, 19-23 Jun 2017
9. A data acquisition system for a beam-tagging hodoscope used in hadrontherapy monitoring, **X. Chen**, J.-P. Cachemiche, C. Pimenta Cheble Caplan, L. Caponetto, D. Dauvergne, R. Della Negra, M. Fontana, G.-N. Lu, C. Morel, M. Rodo Bordera, E. Testa, Y. Zoccarato, NSS/MIC'2017, IEEE Nuclear Science Symposium and Medical Imaging Conference, Atlanta, United States, 21-28 Oct 2017
10. Characterization results for PLATO : a prototype CMOS readout chip for hybrid X-ray photon counting detectors with low thresholds for fusion plasma diagnostics, **A. Habib**, M. Menouni, D. Fougeron, P. Pangaud, C. Fenzi, G. Colledani, G. Moureau, A. Escarguel, C. Morel, NSS/MIC'2017, IEEE Nuclear Science Symposium and Medical Imaging Conference, Atlanta, United States, 21-28 Oct 2017
11. Développement d'un micro-scanner à comptage de photons pour le CER-IMED, **C. Morel**, Journées du Département Hospitalo-Universitaire Imaging, Marseille, France, 30 Jun 2017
12. Development of a new GATE digitizer module for SiPMs, **M. Lenz**, M. Dupont, U. Pietrzyk, C. Morel, 68th Crystal Clear Collaboration Meeting, Genève, Switzerland, 16 Nov 2017
13. Development of a new GATE digitizer module for SiPMs, **M. Dupont**, M. Lenz, U. Pietrzyk, C. Morel, OpenGATE Collaboration technical meeting, Marseille, France, 30 Nov - 1 Dec 2017
14. A study of the Temporal Compton camera with GATE, **B. Mehadji**, M. Dupont, C. Morel, OpenGATE Collaboration technical meeting, Marseille, France, 30 Nov - 1 Dec 2017
15. Longitudinal monitoring of hepatocellular carcinoma in mice with the photon counting microCT scanner PIXSCAN-FLI, **L. Portal**, F. Cassol, M. Dupont, Y. Boursier, S. Richelme, F. Maina, C. Morel, BCP 13, 13ème Journée Scientifique Interface Biologie- Chimie-Physique, Marseille, France, 4 Dec 2017
16. Pôle imagerie: défi 10 ps, **C. Morel**, Journées du GDR Modélisation et Instrumentation pour l'Imagerie Biomédicale, Caen, France, 5-6 Dec 2017
17. Développement d'un micro-scanner à comptage de photons PIXSCAN-FLI, **C. Morel**, Journées du GDR Modélisation et Instrumentation pour l'Imagerie Biomédicale, Caen, France, 5-6 Dec 2017

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1. Development of a new GATE digitizer module for SiPMs, **M. Dupont**, C. Morel, 4th FAST WG3/4/5 Meeting, Ljubljana, Slovenia, 8-9 Jan 2018
2. Longitudinal in vivo monitoring of hepatocellular carcinoma in mice with photon counting computed tomography, **L. Portal**, F. Cassol, M. Dupont, Y. Boursier, F. Maina, C. Morel, EMIM'2018, European Molecular Imaging Meeting, San Sebastian, France, 20-23 Mar 2018
3. Simultaneous reconstruction and separation in a spectral CT framework with a proximal variable metric algorithm, **S. Tairi**, S. Anthoine, C. Morel, Y. Boursier, The Fifth International Conference on Image Formation in X-Ray Computed Tomography - CT Meeting, Salt Lake City, United States, 20-23 May 2018
4. FAST Working Group 4 - Electronics DAQ, **C. Morel**, J. Varela, 4th FAST Annual Meeting, Bucharest, Romania, 8-9 Mar 2018

## affiche

2010

1. Design and Construction of the ClearPET/XPAD Small Animal PET/CT Scanner, **C. Morel**, Physics for Health in europe workshop (Towards a European roadmap for using physics tools in the development of diagnostics techniques and new cancer therapies), Genève, Switzerland, 2-4 Feb 2010

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1. New Concept of a Submillimetric Pixellated Silicon Detector for in Vivo Brain Studies in Freely Moving Rodents, **J. Maerk**, 2011 World Molecular Imaging Congress, San Diego, United States, 7-10 Sep 2011

2012

1. PIXSIC-Characterisation of a Beta+ Intracerebral Wireless Probe for Functional Imaging Coupled with Behavioural Studies Performed on Freely Moving Rats, **J. Maerk**, L. Balasse, D. Benoit, M. Benoit, J.-C. Clémens, S. Fieux, D. Fougeron, B. Janvier, M. Jevaud, A. Genoux, P. Gisquet-Verrier, F. Lefebvre, M. Menouni, F. Pain, C. Tourvielle, L. Zimmer, C. Morel, P. Lanière, WMIC'2012 World Molecular Imaging Congress, Dublin, Ireland, 5-8 Sep 2012
2. Comparison of the performance of the photon counting hybrid pixel camera XPAD3 versus the CCD camera DALSA XR-4 for cone-beam micro-CT, **H. Ouamara**, F. Cassol Brunner, A. Bonissent, Y. Boursier, C. Kronland-Martinet, J.-C. Clemens, M. Dupont, F. Debarbieux, C. Morel, 2012 Nuclear Science Symposium, Medical Imaging Conference Workshop on Room-Temperature Semiconductor X-Ray and Gamma-Ray Detectors, Anaheim, Californie, United States, 29 Oct - 3 Nov 2012

3. Imagerie à comptage de photons, **F. Cassol Brunner**, A. Bonissent, Y. Boursier, F. Debarbieux, J.-C. Clémens, M. Dupont, M. Hamonet, C. Kronland-Martinet, H. Ouamara, C. Morel , IX ième Journée Scientifique BCP, Marseille, France, 3 Dec 2012
4. Imagerie spectrale basée sur la caméra à pixels hybrides XPAD3, **M. Dupont**, Y. Boursier, F. Cassol Brunner, A. Bonissent, H. Ouamara, C. Morel, Journées Scientifiques Nouvelles méthodologies du vivant, Lyon, France, 11-13 Dec 2012
5. Comparison of the performance of the photon counting hybrid pixel camera XPAD3 versus the CCD camera DALSA XR-4 for cone-beam micro-CT, **H. Ouamara**, F. Cassol Brunner, A. Bonissent, Y. Boursier, C. Kronland-Martinet, J.-C. Clémens, M. Dupont, F. Debarbieux, C. Morel, Journées Scientifiques Nouvelles méthodologies du vivant, Lyon, France, 11-13 Dec 2012
6. Normalisation of the PET data acquired with the hybrid PET/CT prototype ClearPET/XPAD, **M. Hamonet**, T. Fabiani, C. Kronland-Martinet, F. Debarbieux, F. Cassol, C. Morel, Journées Scientifiques Nouvelles méthodologies du vivant, Lyon, France, 11-13 Dec 2012

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1. Component separation for spectral X-ray imaging using the XPAD3 hybrid pixel camera, **M. Dupont**, Y. Boursier, A. Bonissent, F. Galland, F. Cassol, C. Kronland-Martinet, C. Morel, NSS/MIC'2013, IEEE Nuclear Science Symposium and Medical Imaging Conference, Seoul, South Korea, 27 Oct - 02 Nov 2013

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1. Comparison of three types of XPAD3.2/CdTe single chip hybrids for hard X-ray applications in material science and biomedical imaging, C. Buton, A. Dawiec, J. Graber-Bolis, K. Arnaud, J.-F. Bézar, N. Blanc, N. Boudet, F. Cassol, J.-C. Clémens, F. Debarbieux, P. Delpierre, B. Dinkespiler, T. Gastaldi, S. Hustache, C. Morel, P. Pangaud, H. Perez-Ponce, E. Vigeolas, iWoRiD'2014, 14th International Workshop on Radiation Imaging Detectors, Trieste, Italy, 22-26 Jun 2014
2. Development of K-Edge Spectral Tomography Using XPAD3 Composite Pixels, C. Kronland-Martinet, F. Cassol, A. Bonissent, Y. Boursier, M. Dupont, C. Morel, F. Debarbieux , NSS/MIC'2014, IEEE Nuclear Science Symposium and Medical Imaging Conference, Seattle, Washington State, United States, 8-15 Nov 2014
3. Development of K-Edge Spectral Tomography Using XPAD3 Composite Pixels, C. Kronland-Martinet, F. Cassol, A. Bonissent, Y. Boursier, M. Dupont, F. Debarbieux, C. Morel , Xème journée Scientifique BCP CINAM, Marseille, France, 1 Dec 2014

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1. Characterization of the imaging performance of a micro-CT system based on the photon counting XPAD3/Si hybrid pixel detectors, F. Cassol, M. Dupont, C. Kronland-Martinet, H. Ouamara, A. Dawiec, Y. Boursier, A. Bonissent, J.-C. Clémens, L. Portal, F. Debarbieux, C. Morel, EMIM 2016, European Molecular Imaging Meeting, Utrecht, Netherlands, 8-10 Mar 2016
2. Simulation Results for PLATO: a prototype hybrid X-ray photon counting detector with a low energy threshold for fusion plasma diagnostics., **A. Habib**, M. Menouni, P. Pangaud, C. Fenzi, G. Colledani, G. Moureau, A. Escarguel, C. Morel, iWoRiD'2016, 18th International Workshop on Radiation Imaging Detectors, Barcelona, Spain, 3-7 Jul 2016
3. Temporal imaging: observation and localization of a Compton effect inside a 20 mm monolithic LYSO plate with a Philips Digital Si-PM, A. Iltis, H. Snoussi, L. Rodriguez de Magalhaes, C. Morel, IEEE NSS/MIC 2016, Strasbourg, France, 29 Nov - 5 Dec 2016
4. X-ray imaging crystal spectroscopy development for WEST, C. Fenzi, G. Codellani, G. Moureau, P. Lotte, P. Moreau, G. Bertschinger, A. Escarguel, A. Habib, C. Morel, M. Menouni, 21st Topical Conference on High Temperature Plasma Diagnostics, Madison, United States, 5-9 Jun 2016
5. Simultaneous reconstruction and separation in a spectral CT framework, **S. Tairi**, S. Anthoine, C. Morel, Y. Boursier, International Traveling Workshop on Interactions Between Sparse Models and Technology iTWIST'S 2016, Aalborg, Denmark, 24-26 Aug 2016
6. Séparation et reconstruction simultanées en tomodesitométrie spectrale, **S. Tairi**, S. Anthoine, C. Morel, Y. Boursier, 1er forum franco- québécois d'innovation en santé, Montréal, Canada, 11-12 Oct 2016
7. IMIC - Needle-shaped low-power monolithic active pixel sensors for molecular neuroimaging on awake and freely moving rats, J. Heymes, L. Ammour, M. Bautista, G. Bertolone, S. Fieux, F. Gensolen, M. Goffe, F. Guezzi-Messaoud, C. Hu-Guo, M. Kachel, F. Lefebvre, F. Pain, P. Pangaud, L. Pinot, P. Gisquet, P. Laniece, C. Morel, M.-A. Verdier, M. Winter, L. Zimmer, J. Baudot, IEEE NSS/MIC 2016, Strasbourg, France, 29 Nov - 5 Dec 2016
8. Simultaneous reconstruction and separation in a spectral CT framework, S. Tairi, S. Anthoine, C. Morel, **Y. Boursier**, IEEE NSS/MIC 2016, Strasbourg, France, 29 Oct - 5 Nov 2016

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1. First in-vivo monitoring of hepatocellular carcinoma in mice with a photon counting detector for micro-CT imaging, **L. Portal**, F. Cassol, M. Dupont, Y. Boursier, S. Richelme, F. Maina, C. Morel, EMIM'2017, European Molecular Imaging Meeting, Köln, Germany, 5-7 Apr 2017
2. Séparation et reconstruction simultanées en tomographie spectrale via un algorithme proximal à métrique variable, **S. Tairi**, S. Anthoine, C. Morel, Y. Boursier, GRETSI'2017, XXVIe Colloque GRETSI – Traitement du Signal et des Images, Juan-les-Pins, France, 5-8 Sep 2017

3. Design and characterization of pixelated needle probe for molecular neuroimaging on awake and freely moving rats, P. Laniece, C. Morel, M.-A. Verdier, L. Zimmer, J. Baudot, PSD'11, 11th International Conference on Position Sensitive Detectors, Milton Keynes, United States, 3-8 Sep 2017
4. First experimental evaluation of MAPSSIC prototype, a potential novel CMOS intra-cerebral beta+ probe for deep brain imaging in awake and freely moving rats, L. Ammour, J. Heymes, M. Bautista, S. Fieux, F. Gensolen, M. Kachel, A. Dubois, F. Lefèbvre, F. Pain, P. Pangaud, L. Pinot, J. Baudot, P. Gisquet-Verrier, P. Lanièce, C. Morel, L. Zimmer, M.-A. Verdier, NSS/MIC'2017, IEEE Nuclear Science Symposium and Medical Imaging Conference, Atlanta, United States, 21-28 Oct 2017
5. Characterization results for PLATO: a prototype CMOS readout chip for hybrid X-ray photon counting detectors with low thresholds for fusion plasma diagnostics, **A. Habib**, M. Menouni, D. Fougeron, P. Pangaud, C. Fenzi, G. Colledani, G. Moureau, A. Escarguel, C. Morel, NSS/MIC'2017, IEEE Nuclear Science Symposium and Medical Imaging Conference, Atlanta, United States, 21-28 Oct 2017
6. Material decomposition using the PIXSCAN-FLI spectral micro- CT, N. Ducros, O. Pivot, O. Kochebina, M. Dupont, S. Rit, J.M. Létang, J.F.P.J Abascal, F. Peyrin, C. Morel, Y. Boursier, NSS/MIC'2017, IEEE Nuclear Science Symposium and Medical Imaging Conference, Atlanta, United States, 21-28 Oct 2017
7. Décomposition en base de matériaux à partir de données issues du scanner spectral PIXSCAN-FLI, N. Ducros, O. Pivot, M. Dupont, J.M. Létang, S. Rit, J.F. Perez Juste, C. Morel, Y. Boursier, F. Peyrin, CNIV'2017, 2e Congrès National d'Imagerie du Vivant, Paris, France, 8-9 Nov 2017
8. Implementation of an analytical model of SiPM in GATE, **M. Dupont**, C. Morel, SCINT'2017, 14th International Conf. on Scintillating materials and their applications, Chamonix, France, 18-22 Sep 2017
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1. Simultaneous reconstruction and separation in a spectral CT framework., S. Tairi, S. Anthoine, C. Morel, Y. Boursier, SIAM IS18, SIAM Conf. on Imaging Science, Bologne, France, 5-8 Jun 2018

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1. Étude et construction d'un tomographe TEP/TDM pour petits animaux, combinant modules phoswich à scintillateurs et détecteur à pixels hybrides, S.Nicol, Université de la Méditerranée - Aix-Marseille II, 20 Jul 2010

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1. Développement d'une caméra X couleur ultra-rapide à pixels hybrides, A. Dawiec, Université de la Méditerranée - Aix-Marseille II, 04 May 2011

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1. Comparaison de la micro-tomodensitométrie par comptage de photons et par intégration de charges avec le dispositif d'irradiation PIXSCAN, H. Ouamara, Aix-Marseille Université, 15 Feb 2013

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1. Tomographie spectrale à comptage de photons : développement du prototype PIXSCAN et preuve de concept, M. Dupont, Aix-Marseille Université, 18 Apr 2014

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1. Développement de la tomographie intra-vitale au K-edge avec la caméra à pixels hybrides XPAD3, C. Kronland-Martinet, Aix Marseille Université, 19 Mar 2015

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1. Tomographie hybride simultanée TEP/TDM combinant détecteurs à pixels hybrides et modules phoswich à scintillateurs, M. Hamonet, Aix Marseille Université, 19 Avr 2016

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1. XPAD, A Photon Counting Imager For Xray Applications, P. Pangaud *et al.*, CRC Press, (2010) 237 - 261