

## Crystal Clear Collaboration List of Publications

1. **“Neutron imaging with the XPAD3-S hybrid pixel detector”**  
F. Cassol Brunner, N. Kardjilov, J.-C. Clémens, C. Morel  
Nucl. Instrum. Meth. A. 634 (2011): 85-90
2. **“GATE V6 : a major enhancement of the GATE simulation platform enabling modelling of CT and radiotherapy”**  
S. Jan, D. Benoit, E. Becheva, T. Carlier, F. Cassol, P. Descourt, T. Frisson, L. Grevillot, L. Guigues, L. Maigne, C. Morel, Y. Perrot, N. Rehfeld, D. Sarrut, D.R. Schaart, S. Stute, U. Pietrzyk, D. Visvikis, N. Zahra, I. Buvat  
Phys. Med. Biol. 56 (2011) 881-901
3. **“Développement de détecteurs à pixels hybrides pour le comptage de rayons X : une ouverture vers la tomomodensitométrie spectrale”**  
C. Morel, F. Debarbieux  
Conf. Rec. 12ème Colloque de la Société Française des Microscopies, edited by M. Schmutz, 2011, pp. 197-200  
Conference : 12ème Colloque de la Société Française des Microscopies, 27 juin -1er juil 2011, Strasbourg, France
4. **“Repeated imaging of lung cancer development using PIXSCAN, a low dose micro-CT scanner based on XPAD hybrid pixel detectors”**  
F. Debarbieux, A. Bonissent, P. Breugnon, F. Cassol Brunner, P. Delpierre, C. Hemmer, J.-C. Clémens, B. Dinkespiler, J. Luchino, F. Mann, C. Meessen, E. Vigeolas, G. Rougon, C. Morel  
IEEE Trans. Nucl. Sci. 57 (2010) 242-245
5. **“Development of an anthropomorphic breast phantom for combined PET, B-mode ultrasound and elastographic imaging”**  
Jun Dang , Benjamin Frisch, Philippe Lasaygues, Dachun Zhang, Stefaan Tavernier, Nicolas Felix, Paul Lecoq, Etienne Auffray, Joao Varela, Serge Mensah, and Mingxi Wan  
IEEE Trans Nucl Science. accepted on 5/1/2011., to be published in issue TNS June 2011.
6. **“Studies on Dual Readout Calorimetry with Meta-Crystals”**  
G. Mavromanolakis, E. Auffray, P. Lecoq  
To be published in Nuclear Science Symposium Conference Record (NSS/MIC), Knoxville, USA, October 31- November 6 2010
7. **“Correction of random events for a dual-head PEM detector”**  
Ferreira, Cláudia S; Bugalho, Ricardo; Martins, Mónica V.; Matela, Nuno; Varela, João; Almeida, Pedro,  
Poster presentation at the SNM 2011 meeting, Texas - USA
8. **“Performances and Applications of the CdTe- and Si-XPAD3 photon counting 2D detector”**  
K. Medjoubi, S. Hustache, F. Picca, J.-F. Bélar, 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. Nicolas, P. Pangaud, E. Vigeolas (2011). JINST 6 C01080.  
Conference : iWoRiD’2010, 12<sup>th</sup> International Workshop on Radiation Imaging Detectors, Jul 11-15 2010, Cambridge, U.K.
9. **“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. Bélar, N. Boudet, C. Morel (2010).  
Conf. Rec. IEEE Real-Time’2010, IEEE Press.  
Conference : IEEE Real-Time’2010, 17<sup>th</sup> Real-Time Conference on Real-Time Computer Applications in Nuclear, Particle and Plasma Physics, May 24-28 2010, Lisbon, Portugal
10. **“Calorimetry with metacable”**  
E. Auffray, P. Lecoq, G. Mavromanolakis,  
To be published in proceedings of the Calor2010 conference, Beijing, China, May 10-14 2010
11. **“Choosing the Art relaxation parameter for Clear-PEM 2D image reconstruction”**  
J. Mesquita, N. Matela, N. Oliveira, M.V. Martins, P. Almeida

12. **“System Matrix Calculation for 2D Image Reconstruction Algorithms for the Clear PEM” Scanner**  
N. Matela, M. V. Martins, N. Oliveira, P. Rodrigues, A. Trindade, J. Varela, P. D. Almeida,  
Int J Tomogr Stat, (2010), vol13, nW10, pp 98-125
13. **“A feasibility study of photosensor charge signal transmission to preamplifier using long cable for development of hybrid PET-MRI”**  
J. Kang, Y. Choi, K.J. Hong, J. H. Jung, W. Hu, Y. S. Huh, H. K. Lim, B-T Kim,  
Medical Physics, 2010; 37(11):5655-5664
14. **“Nonlinear least-squares modeling of 3D interaction position in a monolithic scintillator block”**  
Zhi LI, M. Wedrowski, P. Bruyndonckx, G. Vandersteen.  
Phys. Med Biol. 55(2010)6515-6532
15. **“A Simple and Improved Digital Timing Method for Positron Emission Tomography”**  
W Hu, Y. Choi, K. J. Hong, J. Kang, J. H. Jung, Y. S. Huh, H. K. Lim, S. S. Kim, B. T. Kim,  
Nuclear Instrumentation and Methods in Physics Research, A 2010; 622:219-224
16. **“Development of a position decoder circuit for PET consisting of GAPD arrays”**  
J.H. Jung, Y. Choi, K.J. Hong, W. Hu, J. Kang, B.J. Min, S, H, Shin, H.K. Lim, Y.S. Huh, E.J. Kim, Nuclear  
Instrumentation. and Methods in Physics Research, A 2010; 621:310-315
17. **“Bridgman growth and site occupation in LuAG:Ce scintillator crystals”**  
A.G.Petrosyan, K.L.Ovanesyan, R.V.Sargsyan, G.O.Shirinyan, D.Abler, E.Auffray, P.Lecoq, C.Dujardin, C.Pedrini,  
J. Crystal Growth, Vol 312, (2010) 3136-3142.
18. **“A GATE simulation study of a fan-beam collimator for SPECT mammography”**  
Ricardo Capote, P. Almeida,  
Poster presentation at the EANM 2010 Congress – Viena – Austria
19. **“Initial Evaluation of Real Data Obtained With the Clear-PEM Scanner”**  
Sofia Ferreira, P. Almeida et al,  
Oral presentation at the EANM 2010 Congress – Viena – Austria
20. **“The ClearPEM breast Imaging scanner”**  
E. Albuquerque, ..., S. Tavernier, et al.,  
The 12th Vienna conference on instrumentation, 15-20 February 2010. oral presentation. To be published in the  
proceedings.
21. **“LuAG:Ce fibers for high energy calorimetry”**  
C.Dujardin, D.Abler, E.Auffray, P.Lecoq, C.Mancini, D.Amans, G.Ledoux, D.Perrodin, K.Ovanesyan, A.Petrosyan,  
J. Applied Phys., 2010, 108, 1013510.
22. **“CAD em Mamografia: Estado da Arte e Potencialidades Clínicas”**  
N. Oliveira, N. Matela, L. Janeiro, L. Freire, M. Pereira, P. Almeida;  
Acta Radiológica Portuguesa, Vol.XXII, nº 86, pág. 21-22, Abr.-Jun., 2010
23. **“Imaging performance of the hybrid pixel detectors XPAD3-S”**  
F. Cassol Brunner, J.-C. Clémens, C. Hemmer, C. Morel  
Phys. Med. Biol. 54 (2009) 1773-1789
24. **“Robustness of Machine Learning Algorithms for Gamma Detection in Positron Emission Tomography”**  
Mateusz Wędrowski, Peter Bruyndonckx, Stefaan Tavernier, ZhiLi, Jun Dang, Pedro Rato Mendes,  
Jose Manuel Perez and Karl Ziemons,  
Proceedings of the IEEE Nuclear science symposium and medical imaging conference, Orlando, October 2009
25. **“LuAG material for dual readout calorimetry at future high energy physics accelerators”**  
E. Auffray, D. Abler, S. Brunner, B. Frisch, A. Knapitsch, P. Lecoq, G. Mavromanolakis, O. Poppe, A. Petrosyan,  
Nuclear Science Symposium Conference Record (NSS/MIC), Orlando, USA, October 25-31 2009, (2009) 2245–2249
26. **“Component-based normalization correction for the Clear-PEM Positron Emission Mammography system”**  
C. Guerreiro, N. C. Ferreira, R. Bugalho, A. Trindade, N. Matela, M. V. Martins, L. Mendes, P. Almeida, J. Varela  
Poster presentation at the IEEE MIC Conference 2009 – Orlando, USA

27. **“Factors Influencing Time Resolution of Scintillators and Ways to Improve Them”**  
P. Lecoq, E. Auffray, S. Brunner, H. Hillemanns, P. Jarron, A. Knapitsch, T. Meyer, F. Powolny, Nuclear Science, IEEE Transactions on Volume: 57, Issue: 5, (2010) 2411 – 2416  
Nuclear Science Symposium Conference Record (NSS/MIC), Orlando, USA, October 25-31 2009, (2009) 1880–1885
28. **“Design and construction of the ClearPET/XPAD small animal PET/CT scanner”**  
S. Nicol, S. Karkar, C. Hemmer, A. Dawiec, D. Benoit, P. Breugnon, B. Dinkespiler, F. Rivière, J.-P. Logier, M. Niclas, J. Royon, C. Meessen, F. Cassol, J.-C. Clémens, A. Bonissent, F. Debarbieux, E. Vigeolas, P. Delpierre, C. Morel  
Nuclear Science Symposium Conference Record (NSS/MIC), Orlando, USA, October 25-31 2009, (2009) 3311-3314.
29. **“Development of anthropomorphic phantoms for combined PET-Ultrasound breast elastography imaging”**  
Jun DANG, Philippe Lasaygues, Dachun Zhang, Stefaan Tavernier, Nicolas Felix, Benjamin Frish, Serge Mensah and Minxi Wan,  
Proceedings of the IEEE Nuclear science symposium and medical imaging conference, Orlando, October 2009
30. **“Characterization of the Clear-PEM Breast Imaging Scanner Performance”**  
E. Albuquerque, et al. (44 authors)  
Nuclear Science Symposium Conference Record (NSS/MIC), Orlando, USA, October 25-31 2009, (2009) 3487–3490
31. **“XPAD3 hybrid pixel detector applications”**  
J.-F. Bézar, N. Boudet, P. Breugnon, B. Caillot, B. Chantepie, J.-C. Clémens, P. Delpierre, B. Dinkespiler, S. Godiot, C. Meessen, M. Menouni, C. Morel, P. Pangaud, E. Vigeolas, S. Hustache, K. Medjoubi  
Nucl. Instrum. Meth. A 607 (2009): 233-235  
Conference : iWoRiD’2008, 10th International Workshop on Radiation Imaging Detectors, Jun 29-Jul 3 2008, Helsinki, Finland
32. **“Dual Readout With PWO Crystals and LuAG Crystal Scintillating Fibers”**  
E. Auffray, D. Abler, P. Lecoq, G. Mavromanolakis,  
Nuclear Science, IEEE Transactions on Volume: 57, Issue: 3, Part: 2 (2010) 1454 – 1459  
(Proceedings of the 10<sup>th</sup> International Conference on Inorganic scintillators and their applications, Jeju Korea, 8-12 June 2009)
33. **“Estudo da Influência do número de ciclos por projecção no cálculo da fracção de ejeção ventricular esquerda em estudos GATED-SPECT”**  
L.Vieira, D.Faria, J. Patrino, C. Nunes, D. Sousa, L. Ribeiro, P. Almeida, D. C. Costa  
Saúde e Tecnologia #2, (2009), 45-55
34. **“Optimization of 2D Image Reconstruction for Positron Emission Mammography using IDL”**  
Nuno Oliveira, Nuno Matela, Ricardo Bugalho, Nuno Ferreira, Pedro Miguel Dinis Almeida, Comp. Biol. Med. (2009), 39 (2): pp 119-129
35. **“Depth of interaction resolution of LuAP and LYSO crystals”**  
J. Trummer, E. Auffray, P. Lecoq,  
Nucl. Instrum. Methods Phys. Res., A 599 (2009) 264-269
36. **“Simulation results of a veto counter for the ClearPEM”**  
J. Trummer, E. Auffray, P. Lecoq,  
Nucl. Instrum. Methods Phys. Res., A 602 (2009) 614-617
37. **“Scintillating and optical spectroscopy of Al<sub>2</sub>O<sub>3</sub> : Ti for dark matter Searches”**  
M. Luca, N. Coron, C. Dujardin, H. Kraus, V.B. Mikhailik, M. A. Verdier, P.C. Di Stefano, PCF  
Nucl. Instrum. Methods Phys. Res., A 606 (2009) 545-551
38. **“Monolithic scintillator PET detectors with intrinsic depth-of-interaction correction”**  
Marnix C. Maas, Dennis R. Schaart, D. J. (Jan) van der Laan, Peter Bruyndonckx, Cedric Lemaître, Freek J. Beekman and Carel W. E. van Eijk,  
Phys, Med Biol, 54 (2009) 1893-1908

39. ***“The Clear-PEM Imaging Scanner for Positron Emission Mammography”***  
E. Albuquerque et al. (44 authors)  
In proceedings of ICENES Conference 2009 – Ericeira – Portugal
40. ***“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 (2011) 111-113.  
Conference : iWoRiD’2009, 11<sup>th</sup> International Workshop on Radiation Imaging Detectors, Jun 28-Jul 2 2009, Prague, Czech Republic
41. ***“Targeted Image Reconstruction in Positron Emission Mammography”***  
G. Picado, Nmatela, N. M. Oliveira, P. Almeida,  
Oral presentation at the 11th World Congress on Medical Physics and Biomedical Engineering (2009) – Munich – Germany
42. ***“Development of the XPAD3 X-ray photon counting imager DAQ electronics”***  
A Dawiec, B. Dinkespiler, P. Breugnon, K. Arnaud, S. Godiot, S. Hustache, K. Medjoubi, J.-F. Bézar, N. Boudet, C. Morel  
Conf. Rec. ANIMMA’2009, (2010) IEEE Press.  
Conference : ANIMMA’2009, 1<sup>st</sup> International Conference on Advancements in Nuclear Instrumentation, Measurement Methods and their Applications, Jun 7-10 2009, Marseille, France
43. ***“The ClearPET/XPAD: development of a simultaneous PET/CT scanner for mice”***  
S. Nicol, S. Karkar, P. Descourt, C. Morel (2009).  
Conf. Rec. ESMI TOPIM’2009, p. 29.  
Conference : ESMI TOPIM’2009, Hot Topics in Molecular Imaging 2009: Dual and innovative imaging modalities, Jan 26-30 2009, Les Houches, France
44. ***“On-Detector electronics of the Clear-PEM scanner”***  
E. Albuquerque, F. G. Almeida, P. Almeida, S. Augusto, V. Bexiga, R. Bugalho, B. Carriço, C. S. Ferreira, N. C. Ferreira, M. Ferreira, J. Godinho, F. Gonçalves, C. Guerreiro, C. Leong, P. Lousã, P. Machado, M. V. Martins, N. Matela, R. Moura, P. Neves, N. Oliveira, C. Ortigão, F. Piedade, J. F. Pinheiro, J. Rego, P. Relvas, A. Rivetti, P. Rodrigues, D. N. Sá, J. Sampaio, A. I. Santos, J. C. Silva, M. M. Silva, I. C. Teixeira, J. P. Teixeira, A. Trindade, J. Varela  
Poster presentation at the International Conference on Biomedical Electronics and Devices - Porto 2009
45. ***“Dual readout calorimeter with heavy scintillating crystal fibers”***  
E. Auffray, D. Ablter, P. Lecoq, C. Dujardin, J. M. Fourmigue, D. Perrodin,  
Nuclear Science Symposium Conference Record, (NSS/MIC) Dresden, Germany, 19 - 25 Oct 2008, (2008) 3262-3265
46. ***“Determination of the Absolute Light Yields of LuYAP and LYSO”***  
M. Kronberger, E. Auffray, P. Lecoq,  
Nuclear Science Symposium Conference Record, (NSS/MIC) Dresden, Germany, 19 - 25 Oct 2008, (2008) 428-432
47. ***“Improving light extraction from heavy inorganic scintillators by photonic crystals”***  
M. Kronberger, E. Auffray, P. Lecoq  
Nuclear Science, IEEE Transactions on Volume: 57 , Issue: 5 , Part: 1 (2010) 2475 - 2482  
Nuclear Science Symposium Conference Record, (NSS/MIC) Dresden, Germany, 19 - 25 Oct 2008, (2008) 3914-3919
48. ***“Study of the light collection efficiency in the CMS ECAL PbWO4 crystals”***  
A. Thea, E. Auffray, P. Lecoq, M. Kronberger  
Nuclear Science Symposium Conference Record, (NSS/MIC) Dresden, Germany, 19 - 25 Oct 2008, (2008) 2448 - 2451
49. ***“Comparison of Spectral and Scintillation Properties of LuAP:Ce and LuAP:Ce,Sc Single Crystals”***  
A.G.Petrosyan, M.Derdzyan, K.Ovanesyan, P.Lecoq, E.Auffray, M.Kronberger, B.Frisch, C.Pedrini, C.Dujardin,  
IEEE Transactions Nuclear Science, 56, (2009), 2574-2579.  
Nuclear Science Symposium Conference Record, (NSS/MIC) Dresden, Germany, 19 - 25 Oct 2008, (2008) 4877 – 4882
50. ***“Measured Imaging Performance of photon counting hybrid-pixel X-ray detectors”***

F. Cassol Brunner, J.-C. Clemens, C. Hemmer, C. Morel  
Nuclear Science Symposium Conference Record, (NSS/MIC) Dresden, Germany, 19 - 25 Oct 2008, (2008) 3973-3976.

51. **“An Overview of the Clear-PEM Breast Imaging Scanner”**  
E. Albuquerque, et al., (41 authors) F, J. Santos, M. M. Silva, S. Tavernier, I. C. Teixeira, J. P. Teixeira, J. C. Silva, A. Trindade, J. Varela,  
Nuclear Science Symposium Conference Record, (NSS/MIC) Dresden, Germany, 19 - 25 Oct 2008, (2008) 5616 - 5618
52. **“Performance Evaluation of a Highly Integrated APD/ASIC Double-Readout Supermodule with 768 channels for Clear-PEM”**  
E. Albuquerque, F. G. Almeida, P. Almeida, S. Augusto, V. Bexiga, R. Bugalho, B. Carriço, C. S. Ferreira, N. C. Ferreira, M. Ferreira, J. Godinho, F. Gonçalves, C. Guerreiro, C. Leong, P. Lousã, P. Machado, M. V. Martins, N. Matela, R. Moura, P. Neves, N. Oliveira, C. Ortigão, F. Piedade, J. F. Pinheiro, J. Rego, P. Relvas, A. Rivetti, P. Rodrigues, D. N. Sá, J. Sampaio, A. I. Santos, M. M. Silva, I. C. Teixeira, J. P. Teixeira, J. C. Silva, A. Trindade, J. Varela  
Poster presentation at the 2008 IEEE NSS&MIC Imaging Conference - Desden – Germany
53. **“The XPAD3 detector: a fast hybrid pixel detector for small animal X-ray imaging”**  
B. Chantepie, S. Basolo, A. Bonissent, J.-C. Clemens, F. Debarbieux, P. Delpierre, B. Dinkespiler, M. Menouni, C. Morel, S. Nicol, P. Pangaud, E. Vigeolas  
in Conf. Rec. OCS’2008, (2008) 107-108.  
Conference : OCS’2008, 2<sup>nd</sup> International Conf. on Optical Complex Systems, Mar 17-20 2008, Cannes, France
54. **“Characterization and scintillation properties of sol-gel derived Lu<sub>2</sub>SiO<sub>5</sub>:Ln(3+) (Ln = Ce, Eu and Tb) powders”**  
C. Mansuy, C. Dujardin, R. Mahiou, J. M. Nedelec,  
Optical Materials, (2009), 1334-1336  
Proceedings of 2nd International Workshop on Photoluminescence in Rare Earths Photonic Materials and Devices, MAY 24-25, 2007, Trento, ITALY
55. **“A 20 kpixels CdTe photon-counting imager using XPAD chip”**  
S. Basolo, J.-F. Bérrar, N. Boudet, P. Breugnon, B. Chantepie, J.-C. Clémens, P. Delpierre, B. Dinkespiler, S. Hustache, K. Medjoubi, M. Ménouni, C. Morel, P. Pangaud, E. Vigeolas  
Nucl. Instrum. Meth. A 589 (2008) 268-274
56. **“Beyond ClearPET: Next aims”**  
Ziemons, K.; Bruyndonckx, P.; Perez, J.M.; Pietrzyk, U.; Rato, P.; Tavernier, S.; Biomedical Imaging: From Nano to Macro, 2008. ISBI 2008. 5th IEEE International Symposium on 14-17 May 2008 Page(s):1421 - 1424  
Digital Object Identifier 10.1109/ISBI.2008.4541273
57. **“Small Animal Simulation Studies using microPET FOCUS system and GATE platform”**  
S. Branco, S. Jan. S, P. Almeida,  
International Journal for Computational Vision and Biomechanics, (2008), 1(2): 141-149.
58. **“TI HfO<sub>2</sub>:X (X = Eu<sup>3+</sup>, Ce<sup>3+</sup>, Y<sup>3+</sup>) Sol Gel Powders for Ultradense Scintillating Materials”**  
C. LeLuyer, M. Villanueva-Ibanez, A.Pillonnet, C. Dujardin,  
Journal of Physical Chemistry A , VOL 112, (2008), 10152-10155
59. **“Fiber single crystal growth by LHPG technique and optical characterization of Ce<sup>3+</sup>-doped Lu<sub>2</sub>SiO<sub>5</sub>”**  
H. Farhi, K. Lebbou, S. Belkahla, L. Grosvalet, B. Hautefeuille, A. Caramanian, C. Dujardin, O. Tillement, C. Pedrini,  
Optical Materials Vol 30, (2008) 1461-1467
60. **“The SciCryo project and cryogenic scintillation of Al<sub>2</sub>O<sub>3</sub> for dark matter”**  
P. C. F. Di Stefano, N. Coron, P. de Marcillac, C. Dujardin, M. Luca, F. Petricca, F. Proebst, S. Vanzetto, M. A. Verdier,  
Journal of Low Temperature Physics Vol 151 (2008), 902-907
61. **“Impact of instrumentation parameters on the performance of neural network based positioning algorithms for monolithic scintillator blocks”**  
P. Bruyndonckx, Li Zhi, Cedric Lemaître, J. M. Perez, P. Rato, D. Schaart, M. Maas, D.J. Van der Laan, S. Tavernier  
Proceedings of the IEEE nuclear science and medical imaging conference, 28/10 - 3/11, 2007, Hawaii, USA

62. **“First results of XPAD3, a new photon counting chip for X-ray CT-scanner with energy discrimination”**  
P. Pangaud, S. Basolo, B. Chantepie, J.-C. Clemens, P. Delpierre, B. Dinkespiler, M. Menouni, A. Bonissent, F. Debarbieux, C. Morel  
Nuclear Science Symposium Conference Record, (NSS/MIC) *Honolulu HI, USA Oct 26-Nov 3 2007*, 14-18.
63. **“Monte Carlo Simulations Studies in Small Animal PET using GATE”**  
S. Branco, S. Jan and P. Almeida (2007).  
IEEE Nuclear Science Symposium Conference Record: 3994-3997.
64. **“Design study for the ClearPET/XPAD small animal PET/CT scanner”**  
M. Khodaverdi, S. Nicol, J. Loess, F. Cassol Brunner, S. Karkar, C. Morel  
Nuclear Science Symposium Conference Record, (NSS/MIC) *Honolulu HI, USA Oct 26-Nov 3 2007*, 4300-4302.
65. **“Respiratory motion in small animal PET using GATE”**  
S. Branco, S. Jan, P. Almeida  
IEEE Nuclear Science Symposium Conference Record (2008): 4948-4953
66. **“Respiratory motion in small animal PET using Monte Carlo simulations”**  
S. Branco, S. Jan, P. Almeida  
Poster presentation at the 2008 World Molecular Imaging Congress – Nice – France
67. **“Respiratory motion in small animal PET using Monte Carlo simulations”**  
S. Branco, S. Jan, P. Almeida –  
[Abstracts of the Annual Congress of the EANM 2008, Munich, Germany]. *European Journal of Nuclear Medicine and Molecular Imaging* 35(2): S175.
68. **“Probing the Concepts of Photonic Crystals on Scintillating Materials”**  
M. Kronberger, E. Auffray, P. Lecoq  
IEEE Trans. Nucl. Sci. 55 (2008) 1102-1106  
(Proceedings of the 9<sup>th</sup> International Conference on Inorganic scintillators and their applications, Winston Salem, USA, June 4-8, 2007)
69. **“SSPM Readout of LSO, (Lu-Y)AP:Ce and PWO-II Pixels for PET Detector Modules”**  
Y. Musienko, E. Auffray, A. Fedorov, M. Korzhik, P. Lecoq, S. Reucroft, J. Swain,  
IEEE Trans. Nucl. Sci. 55 issue 3 (2008) 1352 – 1356  
(Proceedings of the 9<sup>th</sup> International Conference on Inorganic scintillators and their applications, Winston Salem, USA, June 4-8, 2007)
70. **“High sensitivity PET detector design using monolithic scintillator crystals”**  
P. Bruyndonckx, C. Lemaître, S. Tavernier  
Proceedings of European nuclear conference 2007, 16-20 September 2007, Brussel, Belgium
71. **“Monte Carlo simulations in small animal PET imaging”**  
S. Branco, S. Jan, S. P. Almeida P.  
Nuclear Instruments & Methods in Physics Research Section A-Accelerators Spectrometers Detectors and Associated Equipment, (2007) Vol 580, 1127-1130
72. **“A geometrical calibration method for the PIXSCAN micro-CT scanner”**  
R. Khoury, A. Bonissent, J.-C. Clémens, C. Meessen, E. Vigeolas, M. Billault, C. Morel  
(2009). *JINST* 4 P07016.  
Conference : ITBS’2007, 4<sup>th</sup> International Conference on Imaging Technologies in Biomedical Sciences, Sep 22-28 2007, Milos, Greece
73. **“Simulation of PIXSCAN, a photon counting micro-CT for small animal imaging”**  
F. Cassol Brunner, R. Khoury, D. Benoit, C. Meessen, A. Bonissent, C. Morel  
(2009) *JINST* 4 P05012.  
Conference : ITBS’2007, 4<sup>th</sup> International Conference on Imaging Technologies in Biomedical Sciences, Sep 22-28 2007, Milos, Greece
74. **“La simulation Monte Carlo en médecine nucléaire”**

C. Morel

*Comptes-Rendus ACOMEN'07, Médecine Nucléaire* **31** (2007)160-164.

Conference : ACOMEN'2007, 9<sup>e</sup> Conférence internationale de l'Action Concertée en Médecine Nucléaire, Mai 9-10 2007, Nice, France

75. **“Low temperature photoluminescence of pure and doped paratellurite (TeO<sub>2</sub>) crystals”**  
I. Dafinei, C. Dujardin, E. Longo, M. Vignati, vol 204 (2007) 1567-1570  
Physica Status Solidi A- Applications and Materials Science  
Proceeding of 5th International Conference on Porous Semiconductors - Science and Technology, MAR 12-17, 2006, Sitges, SPAIN
76. **“Evaluation of fiber-shaped LYSO for double readout gamma photon detection”**  
P. Anfre, C. Dujardin, J. M. Fourmigue, B. Hautefeuille, K. Lebbou, C. Pedrini, D. Perrodin, O Tillement  
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