

Recent ITN Publications – presented by TOPIC

Radiotherapy

Chaves, A., Lopes, M.C., Oliveira, C. and Peralta, L., A Radiosurgery Monte Carlo Based Treatment Planning. *23th Estro Annual Meeting*, Oct. 2004. Amsterdam, Holanda, *Rad. Onc.* Vol. 783.

Chaves, A., Lopes, M. C., Alves, C. C., Oliveira, C., Peralta, L., Rodrigues, P. and Trindade, A., A Monte Carlo multiple source model applied to radiosurgery narrow photon beams, *Med. Phys.* 33: (2004), 2192-2204.

Superheated Droplet Detectors

R. Ramos, F. Giuliani, T.A. Girard, C. Oliveira, J.G. Marques, D. Limage, T. Morlat and G. Waysand., Neutron Spectrometry with Large Volume, Heavy-Loaded Superheated Droplet Detectors: A simple Spin-Off, *ICRS-10 and RPS 2004*. May 2004. Funchal. *Radiation Protection Dosimetry*. 115 398-402 (2005).

T.A. Girard, F. Giuliani, J.I. Collar, D. Limage, H.S. Miley, T. Morlat, G. Waysand, M. Auge, D. Boyer, A. Cavaillou, J.G. Marques, C. Oliveira, J. Puibasset, M. da Costa, A.C. Fernandes, A.R. Ramos, R.C. Martins, Simple Limits on Spin-dependent WIMP Interactions, *Proc. 9th Int. Conf. On Topics in Astroparticles and Underground Physics*, J. Physics: Conf. Series 39 (2006), pp. 114-116.

F. Giuliani, F. C. Oliveira, C., J.I. Collar, J.J., TA Girard, TA, Morlat, T., Limage, D., Marques, J.G and Waysand, G., Response of SIMPLE SDDs to Monochromatic Neutron Irradiations, *Nucl. Inst. Meth. A.* (2004), 348-358.

F. Giuliani, T.A. Girard, J.J. Collar, D. Limage, H.S. Miley, T. Morlat, G. Waysand, M. Auge, D. Boyer, A. Cavaillou, J.G. Marques, C. Oliveira, J. Puibasset, M. da Costa, A.C. Fernandes, A.R. Ramos, R.C. Martins, SIMPLE Dark Matter Search Results, *Phys. Lett. B* 621 (2005), 233-238.

A.C. Fernandes, T. Morlat. M. da Costa, J.I. Collar, J. Puibasset, G. Waysand, H.S. Miley, A.R. Ramos, T.A. Girard, F. Giuliani, D. Limage, J.G. Marques, C. Oliveira, The SIMPLE SDD, *Radiation Protection Dosimetry*. 120, 503-508 (2006).

Dose Distributions

L. Portugal, C. Oliveira, R. Trindade I. Paiva, A Contribution to the Analysis of the Activity Distributions of a Radioactive Source Trapped Inside a Cylindrical Volume Using the MCNPX code, Second European IRPA Congress on Radiation Protection, Paris, França. 15-19 May 2006. Proc. Ed. CD-ROM (2006).

C. Oliveira, I. Paiva, L. Portugal and R. Trindade, Analysis of the Activity Distribution from an Orphan source in Molten Scrap Metal Using the MCNPX Code, *11th International Congress of the IRPA*. May 2004 Madrid. Espanha. Proc. Ed. CD-ROM (2004).

I. Paiva, C. Oliveira, L. Portugal and R. Trindade, Interim Storage of Spent and Disused Sealed Sources: Optimization of External Dose Distribution in Waste Grids, Using MCNPX Code, *ICRS-10 and RPS 2004*. May 2004. Funchal. *Radiation Protection Dosimetry*. 116 417-422 (2006).

L. Portugal, C. Oliveira, R. Trindade I. Paiva, A Contribution to the Analysis of the Activity Distributions of a Radioactive Source Trapped Inside a Cylindrical Volume Using the MCNPX code, *Second European IRPA Congress on Radiation Protection*, Paris, França.15-19 May 2006. Proc. Ed. CD-ROM (2006).

L. Portugal and C. Oliveira, “Dosimetric Studies Inside the Irradiation room of the Portuguese 60Co Irradiation Facility”, *15th International Meeting on Radiation Processing*, London, UK, September 21-25, 2008.

Nuclear Medicine

Geão; V. Veloso; E. Pereira; M. Neves; C. Oliveira; A. Mota; P. Delgado; P. Colarinha, “Evaluation and Optimization of the Radiation Doses of the Nuclear Medicine Technicians”, *Annual Congress of the European Association of Nuclear Medicine*, Munich, Germany, October 11-15, 2008.

Shielding design

D. Oliveira and C. Oliveira, Comparison of deterministic and Monte Carlo methods in shielding design, *ICRS-10 and RPS 2004*. May 2004. Funchal. *Radiation Protection Dosimetry*. 115 254-257(2005).

Education and Training

C. Oliveira, A.N. Falcão, R. Trindade, M.C. Lopes, M.C.De Sousa, P. Rosário, Education and Training in Radiation Protection in Portugal: Present Situation and a Project for the Future, *3rd Int. Conf. on Education and Training in Radiological Protection, ETRAP*, 23-25 Nov 2005 Bruxelles. Bélgica. Proc. Ed. CD-ROM.

Uncertainty Assessment

J. Cardoso, C. Oliveira, Photon Irradiation Facility. Proc. Int. Workshop on Uncertainty Assessment in Computational Dosimetry, A Comparison of Approaches. Bologna, October 2007. ISBN:978-3-9805741-9-8. G. Gualdrini & P. Ferrari Ed.

Standards study

J. Cardoso, L. Santos, C. Oliveira, Air Kerma Primary Standard: Experimental and Simulation Studies on Cs-137. Workshop on “Absorbed Dose and Air Kerma Primary Standards”, Paris, May 2007.

C. Oliveira, A. F. Carvalho and J. Cardoso, Study of the spatial variation of the air kerma backscatter factor on the standard ISO phantom: experimental and numerical evaluations, *11th International Congress of the IRPA*. May 2004 Madrid. Espanha. Proc. Ed. CD-ROM. (2004)

J. Cardoso, A.F. Carvalho and C. Oliveira, Simulation Studies on a Prototype Ionisation Chamber for Measurement of Personal Dose Equivalent, Hp(10), *Radiation Protection Dosimetry*. 125, 175-179 n° 1-4. (2007).

P J Allisy-Roberts, D T Burns, C Kessler and J Cardoso, Comparison of the standards for air kerma of the ITN (Portugal) and the BIPM for ^{60}Co γ -rays, *Metrologia*, 46, 06007, Technical Supplement (2009).

Neutron and particle dosimetry

A. C. Fernandes, J. P. Santos, A. Kling, J. G. Marques, I. C. Gonçalves, A. Ferro Carvalho, L. Santos, J. Cardoso, and M. Osvay
Thermoluminescence dosimetry of a thermal neutron field and comparison with Monte Carlo calculations *Radiat Prot Dosimetry*, Aug 2004; 111: 35 - 39.

A. C. Fernandes, I. C. Gonçalves, J. Santos, J. Cardoso, L. Santos, A. Ferro Carvalho, J. G. Marques, A. Kling, A. J. G. Ramalho, and M. Osvay
Dosimetry at the Portuguese research reactor using thermoluminescence measurements and Monte Carlo calculations *Radiat Prot Dosimetry*, September 2006; 120: 349 - 353.

J. P. Santos, A. C. Fernandes, I. C. Gonçalves, J. G. Marques, A. F. Carvalho, L. Santos, J. Cardoso, and M. Osvay
Photon and fast neutron dosimetry using aluminium oxide thermoluminescence dosimeters *Radiat Prot Dosimetry*, September 2006; 120: 358 - 360.

Individual monitoring

J. G. Alves, J. N. Abrantes, O. Margo, S. Rangel, and L. Santos
Long-term stability of a TLD-based individual monitoring system *Radiat Prot Dosimetry*, September 2006; 120: 289 - 292.

J. G. Alves, R. Montezuma, O. Margo, and L. Santos Study on quality control parameters of a TLD system for individual monitoring Radiat Prot Dosimetry, Aug 2004; 111: 21 - 25.

J.G. Alves, V.I. Batel, P.B. Silva, A. Roda, L. Santos. Simple routine tests to improve the performance of the DPRSN TLD-based individual monitoring system, Proceedings of the European IRPA Congress 2002 *Towards Harmonisation of Radiation Protection in Europe*, ISBN 88-88648-09-7 (2002).

J.G. Alves, A. Calado, J.V. Cardoso, L.M. Santos. Energy and angular dependence of the personal dosimeter in use at ITN-DPRSN. Radiat. Meas. **43**, 641-645 (2008).

L. Freire, A. Calado, J.V. Cardoso, L.M. Santos, J.G. Alves. Comparison of LiF (TLD-100 and TLD-100H) detectors for extremity monitoring. Radiat. Meas. **43**, 646-650 (2008).