

 Nuclear Engineering

Operation and Exploitation of the Reactor, Dosimetry (RPI) and Reactor Calculations

Journals

J.P. Santos, J.G. Marques, Photon dosimetry using Red 4034 Harwell dosimeters in a pool-type research reactor, *Radiation Measurements* 43 (2008) 1166-1169.

M. Felizardo, R.C. Martins, T. A. Girard, A.R. Ramos, T. Morlat, F. Giuliani, J.G. Marques, New acoustic instrumentation for the simple superheated droplet detector, *Nucl. Instr. & Meth., A* 589 (2008) 72-84.

M. Felizardo, R.C. Martins, T. A. Girard, A.R. Ramos, T. Morlat, F. Giuliani, D. Limagne, G. Waysand, J.G. Marques, Improved acoustic instrumentation of the SIMPLE detector, *Nucl. Instr. & Meth., A* 585 (2008) 61-68.

T. Morlat, M. Felizardo, F. Giuliani, T.A. Girard, G. Waysand, R.F. Payne, H.S. Miley, A.R. Ramos, J.G. Marques, R.C. Martins, D. Limagne, A CF3I-based SDD prototype for spin-independent dark matter searches, *Astrop. Phys.* 30 (2008) 159-166.

T.A. Girard, Fleshing out the Search for WIMPs, *Physics Today* 61 (2008) 12-13.

K. Lorenz, J.G. Marques, N. Franco, E. Alves, M. Peres, M.R. Correia, T. Monteiro, Defect studies on fast and thermal neutron irradiated GaN, *Nuclear Instruments and Methods in Physics Research B* 266 (2008) 2780-2783.

J.G. Marques, Core Conversion of the Portuguese Research Reactor, Proc. 48th Annual Meeting of the Institute of Nuclear Materials Management, Tucson (AZ), July 2007 (Curran Associates, Inc., Red Hook, NY, 2008, ISBN: 9781605601021).

Conference Proceedings

J.G. Marques, A.J.G. Ramalho, Return of Research Reactor Spent Fuel to the Country of Origin: Requirements for technical and administrative preparations and national experiences, Portuguese experience on return of spent fuel to the United States of America, *IAEA-TECDOC* 1593 (2008)

Communications

Commissioning of the New LEU Core of the Portuguese Research Reactor, J.G. Marques, A.R. Ramos, J.P. Santos, J.G. Stevens and J.E. Matos, 12th

International Topical Meeting on Research Reactor Fuel Management, Hamburg, March 2008 (invited)

Return of HEU Fuel from the Portuguese Research Reactor, J.G. Marques, N.P. Barradas, A. Kling, A.R. Ramos, C. Anne and V. Garcia, 25th International Meeting on Reduced Enrichment for Research and Test Reactors, Washington, October 2008 (invited)

RBS analysis of InGaN/GaN quantum wells for hybrid structures with efficient Förster coupling, N. P. Barradas, *Workshop on New Trends and Applications of Ion Beams, 1-3 de Abril de 2008*, Sacavém, invited.

IBA software and data analysis, N. P. Barradas, *IBAF2008 - 2e Rencontres Analyse par Faisceaux d'Ions Rapides, 13-15 Outubro 2007*, Cascans-Maubuisson, França, invited.

As Novas Gerações de Centrais de Cisão Nuclear – Vantagens e Inconvenientes, J.G. Marques, I Debate Conferência “Produção, Consumo e Eficiência Energética Para a Próxima Década em Portugal”, Lisboa, 20 de Setembro de 2008, invited.

Energia Nuclear, J.G. Marques, *XXI Jornadas de Engenharia Química, Instituto Superior Técnico*, 12 de Maio de 2008, invited.

J.G. Marques, Participação em programa da série “Geração High-Tech”, subordinado ao tema “Energia Nuclear”, no canal MOV da ZON TV Cabo, emitido em Setembro e Outubro de 2008.

Internal Reports

A. Kling, Radiological Control at the Portuguese Research Reactor (RPI) Report January 1 – December 31, 2007 ITN/RPI-R-08-99.

J. Marques, N. Barradas, A. Kling, A.Rita Wahl, RPI Annual Report - 2007, ITN/RPI-R-08/100.

A. Kling, Radiological Control at the Portuguese Research Reactor (RPI) Report January 1 – June 30, 2008 ITN/RPI-R-08-101.

Ana Fernandes, Joana Santos, José Marques, Caracterização do campo de neutrões no núcleo do reactor português de investigação com combustível de baixo enriquecimento - Configuração N3-P1/12008 ITN/RPI-R-08-102.

Marie Lubrano-Lavadera, Caractérisation d'un faisceau de mesure du réacteur RPI pour adapter les conditions d'irradiation de cartes électroniques à celles du réacteur RJH 2008 ITN/RPI-R-08-103.

Mário Sousa, Caracterização de uma instalação para irradiação de circuitos electrónicos no Reactor

Português de Investigação 2008 ITN/RPI-R-08-104.

Applied Dynamics

Journals

O. Inácio, J. Antunes, M.C.M. Wright (2008), Computational modelling of string–body interaction for the violin family and simulation of wolf notes. *Journal of Sound and Vibration*, Vol. 310, pp. 260-286.

Conference Proceedings

J. Antunes, X. Delaune, P. Piteau, L. Borsoi, A simple consistent method for the time-domain simulation of turbulence excitations applied to tube/support dynamical analysis under non-uniform flows, *9th International Conference on Flow Induced Vibrations (FIV-2008)*, Zolotarev & Horacek eds, 30 June-3 July 2008, Prague, Czech Republic.

V. Debut, J. Antunes, M. Moreira, Flow-acoustic interaction in corrugated pipes: Time-domain simulation of experimental phenomena, *9th International Conference on Flow Induced Vibrations (FIV-2008)*, Zolotarev & Horacek eds, 30 June-3 July 2008, Prague, Czech Republic.

Miguel Moreira, José Antunes, Vincent Debut, Heitor Pina, Optimization of baffle configurations to prevent aeroacoustics instabilities in heat exchangers: preliminary experiments, *9th International Conference on Flow Induced Vibrations (FIV-2008)*, Zolotarev &

Horacek eds, 30 June-3 July 2008, Prague, Czech Republic.

Vincent Debut, José Antunes, The “two-phase sound” of cheering champagne glasses, *XXII International Congress of Theoretical and Applied Mechanics (ICTAM)*, 25-29 August 2008, Adelaide, Australia.

Octávio Inácio, José Antunes, Wolf killing: the subtle problem of controlling cello string/body coupled resonances, *XXII International Congress of Theoretical and Applied Mechanics (ICTAM)*, 25-29 August 2008, Adelaide, Australia.

Communications

O. Inácio, J. Antunes, Shape-optimization of several multi-modal resonators accounting for room/resonator acoustical coupling, *Acoustics 2008*, 29 June-4 July 2008, Paris, France.

V. Debut, J. Antunes, A theoretical model to simulate two-phase vibro-acoustical frequency and damping effects in a pipe, *156th Meeting of the Acoustical Society of America*, 10-14 November 2008, Miami, USA.

Internal Reports

J. Antunes, Vitamine 3 : Modelisation temporelle des champs d'excitation turbulents partiellement corrélés, Report ITN/ADL-Dec08-01.