

CURRICULUM VITAE



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Education

- 2000, PhD in Physics (Biophysics), Universidade Nova de Lisboa, Faculdade de Ciências e Tecnologia.
- 1992, MSc in Applied Nuclear Physics, Universidade de Lisboa, Faculdade de Ciências de Lisboa.
- 1987, Graduation in Physics (Microphysics), Universidade de Lisboa, Faculdade de Ciências de Lisboa.

Professional Employment Career

- 2004-2008, Coordination of the Dose Evaluation and Dose Registration Unit at Instituto Tecnológico e Nuclear, Unidade de Protecção e Segurança Radiológica (ITN-UPSR), comprising the Individual Monitoring Service and the National Dose Register.

- 2006-2007, ITN representative at the Working Group on Radiation Protection of IPAC-Instituto Português para a Acreditação.
- 2005-2007, Member of Comissão Coordenadora do Conselho Científico of ITN.
- Since 2000, Auxiliary Researcher, ITN-UPSR, Sacavém (Portugal).
- Since 1996, Head of the Individual Monitoring Service (TLD) of ITN.
- 1993-1995, Invited Assistant Professor, Universidade Nova de Lisboa, Faculdade de Ciências Médicas, Departamento de Biofísica.
- 1991-2000, Research Assistant, ITN-UPSR
- 1988-1991, Research Trainee, ITN-UPSR

Fellowships and Training

- 2001, IAEA Regional Training Course on Assessment of Occupational Exposure due to External Radiation Sources, Çekmece Nuclear Research and Training Centre, Istanbul (Turkey).
- 1997-2000, PhD grant PRAXIS XXI BD/13522/97 (bolsa mista), Centro de Investigaciones Energéticas Medioambientales y Tecnológicas (CIEMAT), Madrid (Spain). Supervisor: Antonio Delgado Martinez.

Membership of Professional Societies

- Since 2008, Treasurer of EURADOS.
- Since 2007, Council member of EURADOS.
- Since 2001, Associate Member of EURADOS, collaborating in WG2 activities in *Harmonization of Individual Monitoring in Europe*.
- Since 1993, member of Sociedade Portuguesa de Protecção Contra Radiações

Scientific Specialization

- Radiation Protection. Individual monitoring. Thermoluminescence. Characterization of thermoluminescent materials for dosimetry applications. Radiation dosimetry. Environmental, individual and clinical dosimetry. Cosmic radiation dose assessment for aircraft crew. QA & QC in individual monitoring.

Main Scientific Area of Research

- Radiation physics and dosimetry.

Teaching Activities

- 10/2008-02/2009, “Physics of Medical Imaging Systems”, Universidade Atlântica, Barcarena (Portugal).
- 04/2007 and 04/2008, “Radiation Protection” in Training Courses for radiotherapy medical doctors, IPO-Lisboa.
- 07/2005 and 04/2007, Lectures on “TLD materials and measurement techniques”, Universidade Técnica de Lisboa, Instituto Superior Técnico.

- “Radiation physics and dosimetry”, “Individual Monitoring”, “Dosimetric quantities and units”, in training courses regularly organized by ITN.
- January 2006, “Individual Monitoring” and “Workplace Monitoring”. IAEA Regional Training Course on Assessment of Occupational Exposure, CIEMAT, Madrid (Spain).
- Since 2000, supervision of graduate and undergraduate students.
- 1993-1995, “Biofísica”, collaboration on radiation physics laboratory classes for medicine undergraduates, Universidade Nova de Lisboa, Faculdade de Ciências Médicas.

Participation in Projects

- Since 2009, **Dose distribution in CT-fluoroscopy guided procedures**. Participants: IPO-Porto and ITN-UPSR. Coordinator: J. Santos (IPOP).
- 2007-2009, **EU-Trimer: Draft European technical recommendations for individual monitoring of ionizing radiation**, EC funded project under contract TREN/07/NUCL/S07.70121. Participants: Consortium GAEK and EURADOS (ITN, PTB, HPA, NRG, ENEA, RPII). Coordinator: V. Kamenopoulou (GAEK).
- 2005-2006, **Harmonization of Individual Monitoring in Europe** funded by the EURADOS Council. Participants: representatives of EU member States. Coordinator: V. Kamenopoulou (GAEK). Subgroup1 **Revision of EUR 14852** Coordinator: J.G. Alves (ITN), Subgroup2 **Proposal for self-sustained intercomparison exercises** Coordinator: M. Figel (HZM).
- 2004-2006, **ESOREX: European Study of Occupational Radiation Exposure** EC funded project. Participants: representatives of EU member States. Coordination: K. Petrova (Czech Republic) and G. Frasch (Germany).
- Since 2003, **Cosmic radiation dose assessment for military crews on board transport flights** Participants: ITN and CMA-FAP. Coordinators: J.G. Alves (ITN) and J. Mairos (CMA).
- 2003-2005, **MinUrar: Minas de Urânio Desactivadas e seus Resíduos: Repercussões na Saúde das Populações** Participants: INSA, IGM, ITN, ARS e CRSP, H.S. Teotónio. Coordinator: J. Marinho Falcão (INSA).
- 2001-2004, **Harmonization of Individual Monitoring in Europe**. 5th FW Project. Participantes: representatives of the 15 EU member States and candidate States. Coordenador: J.W. van Dijk (NRG, Netherlands).
- 2001-2003, **Assessment of environmental contamination around abandoned Uranium mines for improved radiological protection and planning of remediation measures** Projecto funded by IAEA. Coordinator: F. Carvalho (ITN).
- Since 2000, **Study on occupational radiation exposure in Portugal** ITN Internal project. Participants: M.B. Martins and J.G. Alves (Coordinator).
- Since 2000, **QA & QC in individual monitoring** ITN Internal project. J.G. Alves (Coordinator).
- 1997-2000, **Comparative study of the response of GR-200 and TLD-100 in the low dose range** Cooperation agreement DGA\DPSR-CIEMAT. Participants: CIEMAT and DPSR. Coordinators: A. Delgado (CIEMAT) and J.G. Alves (ITN).

- Since 1996, **Individual monitoring to external radiation with TLD**. ITN Internal project. J.G. Alves (Coordinator).
- 1992-1994, **Quality Assurance Parameters and Image Quality Criteria in CT** EC funded project n. BI7-067. Coordinator: J.P. Galvão (LNETI-DPSR).
- 1990-1992, **Study of thermoluminescent materials with dosimetric properties** LNETI-DPRSN Internal project. J. Vaz Carreiro (Coordinator).
- 1988-1991, **Dose Assessment and Quality Assurance in Diagnostic Radiology** EC funded project n. BI6-F-299-P. Coordinator: J.P. Galvão (LNETI-DPSR).

Prizes

- 2009: Best poster award at XIV Encontro de Saúde Militar da CPLP, to “Estudo da Exposição à Radiação Cósmica pelas Tripulações de Aviões Militares de Transporte”.
- 2005: “Ricardo Jorge de Saúde Pública – Menção Honrosa” award to the project “MinUrar – Minas de Urânio e seus resíduos: efeitos na saúde da população”.

Organization of conferences

- 2004, Organizing committee member of the joint ITN-IAEA International Workshop on Environmental Contamination from Uranium Production Facilities and Remediation Measures, held at ITN, on 11th-13th of February 2004.
- IM-2010, Scientific committee member of the IM-2010 European Individual Monitoring Conference, to be held in Athens (Greece) in March 2010.

Scientific Works

- PhD Thesis: *Study of LiF:Mg,Cu,P (GR-200) and LiF:Mg,Ti (TLD-100) in the low gamma dose range: thermal stability and detection limits*. Universidade Nova de Lisboa, Faculdade de Ciências e Tecnologia (2000).
- MSc Thesis: *Characterization of thermoluminescence materials*. Universidade de Lisboa, Faculdade de Ciências de Lisboa (1992).
- Author or co-author of more than 30 original publications in Refereed Journals.
- Co-author of the draft *European Technical Recommendations for monitoring individuals occupationally exposed to ionizing radiation*. EU contract number: TREN/07/NUCL/S07.70121
- several lectures, presentations and communications to national and international meetings.

Publications (last 5 years)

- **Need for a new document to replace EUR 14852 “Technical recommendations for monitoring individuals occupationally exposed to external radiation”**. J.G. Alves, P. Ambrosi, D.T. Bartlett, L. Curri van, J.W.E. van Dijk, E. Fantuzzi, V. Kamenopoulou. *Radiat Prot Dosim*. Editorial, **133**, 3, 127-129 (2009).

- **Developments in standards and other guidance for individual monitoring.** J.G. Alves. *Radiat. Meas.* **43**, 558-564 (2008).
- **Energy and angular dependence of the personal dosimeter in use at ITN-DPRSN.** J.G. Alves, A. Calado, J.V. Cardoso, L.M. Santos. *Radiat. Meas.* **43**, 641-645 (2008).
- **Comparison of LiF (TLD-100 and TLD-100H) detectors for extremity monitoring.** L. Freire, A. Calado, J.V. Cardoso, L.M. Santos, J.G. Alves. *Radiat. Meas.* **43**, 646-650 (2008).
- **Occupational exposure in nuclear medicine in Portugal in the 1999-2003 period.** M.B. Martins, J.G. Alves, J.N. Abrantes, A. Roda. *Radiat. Prot. Dosim.* **125**, 1-4, 130-134 (2007).
- **In-flight dose estimates for aircrew and pregnant female crew members in military transport missions.** J.G. Alves, J.Mairos. *Radiat. Prot. Dosim.* **125**, 1-4, 433-437 (2007).
- **Radioactivity in the environment around past Ra and U mining sites of Portugal.** F.P. Carvalho, M.J. Madruga, M.C. Reis, J.G. Alves, J.M. Oliveira, J. Gouveia, L. Silva. *J. Environ. Radioact.* **96**, 39-46 (2007).
- **Implications of high voltage induced variation on TL readings.** J.G. Alves, J.N. Abrantes, S. Rangel. *Radiat. Prot. Dosim.* **120**, 1-4, 293-297 (2006).
- **Long-term stability of a TLD based individual monitoring system.** J.G. Alves, J.N. Abrantes, O. Margo, S. Rangel, L. Santos. *Radiat. Prot. Dosim.* **120**, 1-4, 289-292 (2006).
- **Aspects of harmonization of individual monitoring for external radiation in Europe: conclusions of a EURADOS action.** V. Kamenopoulou *et al.* *Radiat. Prot. Dosim.* **118**, 139-143 (2006).
- **Radioactive survey in former Uranium mining areas in Portugal.** F.P. Carvalho, M.J. Madruga, M. Reis, J.G. Alves, J.M. Oliveira, J. Gouveia, L. Silva. *IAEA-Proceedings Series, Environmental contamination from U production facilities and their remediation*, 29-40 (2005).
- **Implementation of standards for individual monitoring of external radiation in Europe.** E. Fantuzzi, J.G. Alves, P. Ambrosi, H. Janzekovic, E. Vartiainen. *Radiat. Prot. Dosim.* **112**, 1, 1-42 (2004).
- **Study on quality control parameters of a TLD system for individual monitoring.** J.G. Alves, R. Montezuma, O. Margo, L. Santos. *Radiat. Prot. Dosim.* **111**, 1, 21-25 (2004).