

## Europass Curriculum Vitae



### Personal information

**First name(s) / Surname(s)** **Fulvia Palesi**  
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**Skype** fulvia.palesi  
**Nationality** Italian  
**Date of birth** 23 July 1984  
**Gender** Female

### Desired employment / Occupational field

### Physical and MRI research

#### Work experience

<p><b>Dates</b> 02/2012 - Today</p> <p><b>Occupation or position held</b> <b>Post Doc Collaboration - MRI researcher</b></p> <p><b>Main activities and responsibilities</b> Magnetic Resonance Imaging applied to human brain. Fields of occupation: sequences optimization on 3 T scanner and analysis on diffusion MRI with particular interest on Tensor Density Imaging (TDI) and tractography reconstruction by using free-tensor model algorithms (such as spherical deconvolution and Q-Ball). Studied diseases: Healthy subjects and Multiple Sclerosis.</p> <p><b>Name and address of employer</b> Department of Neuroinflammation, UCL Institute of Neurology Queen Square, WC1N 3BG London (United Kingdom)</p> <p><b>Type of business or sector</b> MRI Research</p>	<p><b>Dates</b> 11/2011 - Today</p> <p><b>Occupation or position held</b> <b>Post Doc - MRI researcher (Temporary Research Fellow)</b></p> <p><b>Main activities and responsibilities</b> Magnetic Resonance Imaging applied to human brain. Fields of occupation: sequences optimization on 1.5 T scanner, analysis on diffusion MRI (DTI) and Tractography and functional MRI (fMRI) data. Studied diseases: Alzheimer and Autism.</p> <p><b>Name and address of employer</b> Physics Department, University of Pavia Via Bassi 6, 27100 Pavia (Italy)</p> <p><b>Type of business or sector</b> MRI Research</p>
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Dates 03/2008 - 10/2011  
Occupation or position held MRI researcher (Thesis and PhD)  
Main activities and responsibilities Magnetic Resonance Imaging applied to human brain. Fields of occupation: sequences optimization on 1.5 T scanner, analysis on functional MRI (fMRI), diffusion MRI (DWI and DTI), voxel based morphometry (VBM), spectroscopy (sMR) data.  
Name and address of employer Neuroradiology Unit, Neurological Institute "IRCCS Fondazione Istituto Nazionale C. Mondino" Via Mondino 2, 27100 Pavia (Italy)  
Type of business or sector MRI Research

### Education and training

Dates 11/2008 - 02/2012  
Title of qualification awarded **PhD in Applied Physics**  
Principal subjects / occupational skills covered Magnetic Resonance Imaging applied to human brain with particular interest in diffusion tensor technique.  
Thesis: "Cross-sectional and longitudinal analysis of Diffusion Tensor Imaging in Multiple Sclerosis-like conditions as an early marker of disease progression".  
Thesis Supervisor: Prof. A. Lasciari, Thesis Referee: Dr. C. Wheeler-Kingshott  
Name and type of organisation providing education and training Physics Department "A. Volta", University of Pavia Via Bassi 6, 27100 Pavia (Italy)

Dates 10/2006 - 10/2008  
Title of qualification awarded Master Degree in Biomedical Physics (110/110 with honor)  
Principal subjects / occupational skills covered Curriculum: Biomedical Physics  
Thesis: "Magnetic Resonance on HIV patients: correlation among Spectroscopy, Diffusion, tissue density and pathology".  
Thesis Advisor: Prof. A. Lasciari, Prof. S. Bastianello  
Name and type of organisation providing education and training Physics Department "A. Volta", University of Pavia Via Bassi 6, 27100 Pavia (Italy)

Dates 10/2003 - 10/2006  
Title of qualification awarded Bachelor Degree in Biomedical Physics (110/110)  
Principal subjects / occupational skills covered Thesis: "Research of extra-solar planets: unexpected results and new questions about the planetary systems formation".  
Thesis Advisor: Prof. G. Bignami  
Name and type of organisation providing education and training University of Pavia Via Bassi 6, 27100 Pavia (Italy)

Dates 09/1998 - 07/2003  
Title of qualification awarded Scientific High School Graduation (100/100 with honor)  
Name and type of organisation providing education and training "I.T.I.S. A. Volta" (Technological Scientific High School) Viale Giovanni XXIII, 26900 Lodi (Italy)

### Personal skills and competences

Mother tongue(s) **Italian**

Other language(s)

Self-assessment  
European level (\*)

**English**

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user

(\*) [Common European Framework of Reference \(CEF\) level](#)

Social skills and competences	Team work predisposition, good ability to interact with others. Experience working with physicians, technicians, physicists and engineers. Experience working in hospitals.
Organisational skills and competences	Experience in team works organization, good ability to self organization. Ability to manage team tasks.
Technical skills and competences	Problem solving orientation. Proficiency to work with 1.5 Tesla scanners (Philips, Siemens): acquisition, exportation and data analysis. Knowledge of mathematical models and statistic tools applied to medical environment.
Computer skills and competences	OS: MS-DOS, Windows9x-20-NT-XP-Vista-7, Linux (Ubuntu), Unix, MacOS. Pc skills: MATLAB, C, C++, Geant4, MCNP, LabView, PERL bases. MRI post-processing: SPM5-8 (graphic interface and command line), FSL (graphic interface and command line), MRlcro, MRlcron, MRTrix, TrackVis (dtk), Jim, Freesurfer, jMRUI, ImageJ, Osirix. Statistical tools: SPSS and Origin. Software and others: Microsoft Office and EndNote, OpenOffice, Latex, OS Virtualization via VirtualBox.
Other skills and competences	Interested in doing: all MRI techniques, Medical Physics, Bio-images. Hobbies: Bike, Gym, Travels, Reading books, Cooking, Photography.

Driving licence(s) B

### Additional information

#### Publications:

- Caverzasi E, Pichiecchio A, Poloni GU, Calligaro A, Pasin M, Palesi F, Castellazzi G, Pasquini M, Biondi M, Barale F, Bastianello S. Magnetic resonance spectroscopy in the evaluation of treatment efficacy in unipolar major depressive disorder: a review of the literature. *Funct Neurol*, 27(1):13-22, 2012
- Pichiecchio A, Tavazzi E, Poloni GU, Ponzio M, Palesi F, Pasin M, Tosello D, Piccolo L, Romani A, Bergamaschi R, Piccolo G, Bastianello S. Advanced Magnetic Resonance Imaging of Neuromyelitis Optica: a multiparametric approach. *Mult Scler*, 18(6):817-24, 2012
- Palesi F. Cross-sectional and longitudinal analysis of Diffusion Tensor Imaging in Multiple Sclerosis-like conditions as an early marker of disease progression. *Scientifica Acta*, 2011 (Vol 5, N 1, Ph 46-53)
- Palesi F, Vitali P, Chiarati P, Castellazzi G, Caverzasi E, Pichiecchio A, Colli Tibaldi E, D'Amore F, Sinforiani E, Bastianello S. DTI and MR volumetry of hippocampus-PC/PCC circuit: in search of early micro- and macro-structural signs of Alzheimer's disease. *Neurol Res Int*, 2012
- Maccabelli G, Pichiecchio A, Guala A, Ponzio M, Palesi F, Maranzana Rt D, Poloni GU, Bastianello S, Danesino C. Advanced magnetic resonance imaging in benign hereditary Chorea: study of two familial cases. *Mov Disord*, 25: 2670–2674, 2010

#### PhD school:

- National school "VI Seminario Nazionale sul Software della Fisica Nucleare, Subnucleare e Applicata" – Alghero, Italy on June 2009

#### Conferences:

- Spring Conference, SINP (May 27<sup>th</sup>-28<sup>th</sup>, 2011), Psychology Department, Bologna (Italy). Abstract for talk: "Correlazioni neuropsicologiche delle alterazioni del circuito ippocampo-talamo-PC/PCC nella malattia di Alzheimer".
- 1<sup>st</sup> Functional Neuroradiological National Conference, AINR (Feb 17<sup>th</sup>-18<sup>th</sup>, 2011), S.Raffaele Hospital, Milan (Italy). Abstract for talk: "Analisi di voxel based morphometry in pazienti affetti da emicrania con e senza aura".
- 16<sup>th</sup> Annual Meeting of the Organization for Human Brain Mapping (HBM, June 6<sup>th</sup>-10<sup>th</sup>, 2010), Barcelona (Spain). Poster contribution: "Hippocampal structural and functional connectivity: a DTI- fMRI study in Alzheimer's disease".
- 4<sup>th</sup> National Conference SIRAS (Nov 26<sup>th</sup>-27<sup>th</sup>, 2009), Pavia (Italy). Poster contribution:

“Problematiche di post-processing nell’imaging con tecniche avanzate in pazienti con atrofia cerebrale”.

- 4<sup>th</sup> National Conference SIRAS (Nov 26<sup>th</sup>-27<sup>th</sup>, 2009), Pavia (Italy). Poster contribution: “Tipi di sequenze e problemi di warping negli studi fMRI”.
- 4<sup>th</sup> National Conference SIRAS (Nov 26<sup>th</sup>-27<sup>th</sup>, 2009), Pavia (Italy). Poster contribution: “Voxel Based Morphometry: Metodi ed applicazioni”.
- National Conference SIRM (Nov 21<sup>st</sup>, 2008), Milan (Italy). Poster contribution: “Cross-sectional and longitudinal analysis of DWI data: a MANCOVA approach to ADC maps for identifying session independent observables”.

#### **Seminar talks:**

- 1<sup>st</sup> Functional Neuroradiological National Conference, AINR (Feb 17<sup>th</sup>-18<sup>th</sup>, 2011), S.Raffaele Hospital, Milan (Italy). Talk: “Studio DTI delle alterazioni microstrutturali precoci nella malattia di Alzheimer”.
- National Conference “Il Corso Residenziale di Neuroradiologia Funzionale – Applicazioni cliniche delle Tecniche Avanzate di Immagine” (Sept 30<sup>th</sup>, 2009), Pavia (Italy). Talk: “Physical principles of Diffusion Tensor Imaging”.
- 24<sup>th</sup> National Conference, AINR (Oct 1<sup>st</sup>-3<sup>rd</sup>, 2008), Roma (Italy). Talk: “Automatic ROI identification algorithm on ADC and FA maps of the brain using a macroscopic anatomical parcellation of the MNI MRI single-subject brain”

#### **Other contributions:**

- Participation in Book section “Tecniche avanzate in MRI” of “Neuroradiologia. Testo Atlante (II edizione)”. Bastianello S, Luccichenti G, Pezzella FR, Giugni E. Ed. Internazionali Cic, 2009.
- DTI section of CD for National Conference: “Il Corso Residenziale di Neuroradiologia Funzionale – Applicazioni cliniche delle Tecniche Avanzate di Immagine” (Sept 23<sup>rd</sup>, Sept 30<sup>th</sup>, Oct 7<sup>th</sup>, Oct 14<sup>th</sup>, 2009).

Autorization for Italy: **“I allow personal data handling according to D.lgs 196/03”**