

PERSONAL INFORMATION **Dr. Piero Chiacchiaretta, PhD**

 114 Via Aldo Moro, 66020 San Giovanni Teatino, Chieti, Italy

 +39 329 4946261  piero.chiacchiaretta@gmail.com

 Skype piero_chiacchiaretta

 ORCID <http://orcid.org/0000-0003-1089-9809>

 LinkedIn

<https://it.linkedin.com/pub/piero-chiacchiaretta-phd/12/439/930/>

Gender Male | **Date of birth** 27 September 1979 | **Nationality** Italian

POSITION **Research Fellow****WORK EXPERIENCE****March 2015 – Present** **Chief Executive Officer, co-founder**

SerVE s.r.l.
11, Str. Luigi Polacchi, 66100 Chieti (Italy)

Planning and development framework for data analysis and management of images , artificial intelligence applied to web framework .

Business or sector IT, PACS (Picture archiving and communication system) , RIS (Radiological Information System), Domotica, Data Visualization, Machine Learning.

November 2013 – Present **Research Fellow**

University of "G. d'Annunzio", dept. Neuroscience, Imaging and Clinical Sciences
33, str. dei Vestini, 66100 Chieti (Italy)

Study of the temporal and spatial specificities of different functional magnetic resonance imaging techniques with applications to the analysis of functional connectivity during resting state and cognitive or motor tasks .

Employer Prof. Antonio Ferretti

Business or sector Resting State, fMRI Connectivity, fMRI task, ASL (Arterial Spin Labeling), DTI (Diffusion Tensor Imaging).

June 2013 – September 2013 **Scientific cooperation agreement**

University of "G. d'Annunzio", dept. Neuroscience, Imaging and Clinical Sciences
33, str. dei Vestini, 66100 Chieti (Italy)

Study of brain connectivity during cognitive tasks in patients with bipolar disorder using functional magnetic resonance imaging.

Employer Prof. Antonio Ferretti

Business or sector Resting State, fMRI Connectivity, fMRI task

January 2013 – March 2013 **Scientific cooperation agreement**

University of "G. d'Annunzio", dept. Neuroscience, Imaging and Clinical Sciences
33, str. dei Vestini, 66100 Chieti (Italy)

Study of the dynamics of the signal obtained with different BOLD fMRI methods , with applications to the analysis of connectivity during resting state and motor tasks.

Employer Prof. Antonio Ferretti

Business or sector Resting State, fMRI Connectivity, fMRI task

June 2009 – September 2009 **Scientific cooperation agreement**
 University of "G. d'Annunzio", dept. Neuroscience, Imaging and Clinical Sciences
 33, str. dei Vestini, 66100 Chieti (Italy)
 European Project : Hybrid MEG - MRI Imaging System (FP7-HEALTH -2007- A)
 Conception, design, development and prototyping of an antenna formed by squeeed sensors
 superconductivity regime for detection of magnetic fields of the order of fT.
Employer Prof. Gian Luca Romani
Business or sector MEG, squeeed, MRI, prototyping.

January 2004 – January 2009 **Student / Scientific Collaborator**
 ENEA Research Center Frascati
 45, str. E. Fermi, 00044 Frascati - Rome, (Italy)
 Study of the organic molecule Alq_3 for optoelectronic applications (OLED) , the thermolumines-
 cence effects of colored crystals LiF .
Employer Dr. Giuseppe Baldacchini
Business or sector Luminescence, Alq_3 , OLED, Solid State Physics, optoeletronics.

June 2008 – December 2008 **Internship**
 THALES Alenia Space
 60, str. Pile, 67100 L'Aquila, (Italy)
 Optimization of production processes for microelectronic circuits for space use. In particular,
 developed and completed the following activities : "Characterization of cutting processes of
 ceramic material (Low Temperature Co -fired Ceramic) for using CO_2 laser spatial use "
Employer Dott. Sergio Di Nardo
Business or sector Low Temperature Co -fired Ceramic, microelectronic,laser.

EDUCATION AND TRAINING

April 2013 **PhD - Thesis Title: 'Sensitivity of BOLD fMRI response to graded visual contrast: a comparison of spin echo and gradient echo EPI acquisition'** ISCED 6
 University of G. d'Annunzio, Chieti Italy

March 2009 **Master Degree in Physics**
 University of L'Aquila, L'Aquila Italy
 Thesis Tile:' Study of the organic moleculu Alq_3 for optoelectronic applications'

PERSONAL SKILLS

Mother tongue Italian

Other languages	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
French	A2	A2	A2	A2	A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user
[Common European Framework of Reference \(CEF\) level](http://www.cedefop.europa.eu)

- Technical skills and competences**
- Jobin - Yvon spectrofluorimeter Fluorolog 3 .
 - Experience with CO₂ laser power .
 - Experiences with CVD techniques (Chemical Vapor Deposition) .
 - Technical knowledge of XRD , XPS , AFM .
 - Operating skills: SEM , STM , TEM .
 - Theory and NMR and mass spectrometry techniques of organic molecules .
 - Theory of analog and digital signals .
 - Theory and at low temperatures electronic skills .
 - Theory and skills in optoelectronics .
 - Theory and skills in the field of space physics phenomena , such as solar wind and its interaction with the Earth's magnetic field .
 - Theory and skills on embedded systems such as Arduino .
 - Basic design of sensors and remote management by using Labview .
 - Experience in the use of 3D digitization of objects or humans .
 - Theory and expertise in advanced imaging techniques .
- Computer skills**
- O.S.: Windows 95/98/XP, Linux, Unix, MacOSX (Jaguar, Panther, Tiger, Leopard, Snow Leopard, Lion, Mountain Lion, El Capitan);
 - code dev.: Fortran, HTML, C, C++, Python, HTML5, CSS, JS.
 - web solution: Joomla, Wordpress, php, css, MySQL, Tomcat, Apache, MongoDB, Vagrant, Docker.
 - \LaTeX : knowledge of \TeX and various programs related to \LaTeX ;

ADDITIONAL INFORMATION

Publications

1. Bubbico, G., Chiacchiaretta, P., Parenti, M., Di Marco, M., Panara, V., Sepede, G., Ferretti, A., Perrucci M.G. "Effects of second language learning on the plastic aging brain: functional connectivity, cognitive decline and reorganization", *Frontiers in neuroscience* 13, 423 (2019)
2. Mantini, C., Caulo, M., Marinelli, D., Chiacchiaretta, P., Tartaro, A., Cotroneo, A.R., Di Giammarco, G. "Aortic valve bypass surgery in severe aortic valve stenosis: Insights from cardiac and brain magnetic resonance imaging", *Journal of Thoracic and Cardiovascular Surgery* 56(3), pp. 1005-1012 (2018)
3. Chiacchiaretta, P., Cerritelli, F., Bubbico, G., Perrucci, M.G., Ferretti, A. "Reduced dynamic coupling between spontaneous BOLD-CBF fluctuations in older adults: A dual-echo pCASL study", *Frontiers in Aging Neuroscience* (2018)
4. F. Cerritelli, P. Chiacchiaretta, F. Gambi, A. Ferretti "Effect of Continuous Touch on Brain Functional Connectivity Is Modified by the Operator's Tactile Attention", *Frontiers in Human Neuroscience* (2017)
5. R. Esposito, F. Ceri, P. Chiacchiaretta, N. Cera, M. Lauriola, M. Di Giannantonio, A. Tartaro, A. Ferretti "Modifications in resting state functional anticorrelation between default mode network and dorsal attention network: comparison among young adults, healthy elders and mild cognitive impairment patients", *Brain Imaging and Behavior* (2017)
6. S. Delli Pizzi, P. Chiacchiaretta, D. Mantini, G. Bubbico, R. A. Edden, M. Onofrj, A. Ferretti, L. Bonanni "GABA content within medial prefrontal cortex predicts the variability of fronto-limbic effective connectivity", *Brain Struct Funct* (2017)
7. G. Baldacchini, P. Chiacchiaretta, R. M. Montereali, R. B. Pode, M. A. Vincenti, "Singular photoluminescence behavior of Alq₃ films at very long decay time", *J. Lumin* (2017)
8. A. Perrotta, P. Chiacchiaretta, M. G. Anastasio, L. Pavone, G. Grillea, M. Bartolo, E. Siravo, C. Colonnese, R. De Icco, M. Serra, G. Sandrini, F. Pierelli, A. Ferretti "Temporal summation threshold of the nociceptive withdrawal reflex involves deactivation of posterior cingulate cortex.", *European Journal of Pain* (2016)
9. S. Delli Pizzi, P. Chiacchiaretta, D. Mantini, G. Bubbico, A. Ferretti, R. A. Edden, C. Di Giulio, M. Onofrj, L. Bonanni "Functional and neurochemical interactions within the amygdala - medial prefrontal cortex circuit and their relevance to emotional processing", *Brain Structure and Function* (2016)
10. P. Chiacchiaretta, A. Ferretti "Resting State BOLD Functional Connectivity at 3T: Spin Echo versus Gradient Echo EPI", *PLOS One* 10,3 (2015)
11. P. Chiacchiaretta, G.L. Romani, A. Ferretti "Sensitivity of BOLD response to increasing visual contrast: Spin echo versus gradient echo EPI.", *NeuroImage* 82,35-43 (2013)
12. R. Sinibaldi, C. De Luca, J. O Nieminen, A. Galante, V. Pizzella, P. Sebastiani, M. Pannetier-Lecoer, A. Manna, P. Chiacchiaretta, G. Tamburro, A. Sotgiu, C. Fermon, G.L. Romani, S. Della Penna. "Nmr Detection at 8.9 Mt with a Gmr Based Sensor Coupled to a Superconducting Nb Flux Transformer.", *Progress In Electromagnetics Research* 142,389-408 (2013)
13. G. Baldacchini, T. Baldacchini, P. Chiacchiaretta, R. B. Pode, "Why Annealing Processes Affect the Optical Properties of Alq₃ Films and OLEDs", *ECS Transactions* 16(31),3-9 (2009)
14. G. Baldacchini, T. Baldacchini, P. Chiacchiaretta and Q. M. Wang, "Morphological phase transitions in Alq₃ films", *J. Lumin* 129,1831-1834 (2009)
15. G. Baldacchini, P. Chiacchiaretta, R. Reisfeld, E. Zigansky "The origin of luminescence blueshifts in Alq₃ composites", *J. Lumin* 129,1849-1852(2009)

Invited Talk

1. *Joint Seminars - 2015 at IRCCS C. Mondino Fondazione* (Pavia, Italy) presentation: **“Methods of Analysis of Functional and Structural MR neuroimaging in neurology”**(2015)
2. *Workshop “Structural and functional imaging of the elderly brain : the “ normal ” to the pathologica” at ITAB Center (Institute for Advanced Biomedical Technologies)* (Chieti, Italy) presentation: **“Methods of analysis of neuroimaging functional and structural MR in neurology”**(2015)

Awards Award for Young Researcher in the international conference Electroluminescence 2008 presentation: **“The Science and Tecnology of Emissive Displays and Lighting (EL2008) (Tivoli, Rome)”**

Grants

1. EFIC-GRÜNENTHAL 2016 Grant (E-G-G) with research project: **“Intersubject variability of brainstem endogenous analgesia expressed by conditioned pain modulation and phenotypical characterization of the nociceptive profile in humans. A cortical-brainstem connectivity study”** 40.000 Euro.
2. ATTRACT 2018 - EU Grant (funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 777222) with research project: **“Mixed reality for brain functional and structural navigation during neurosurgery”** 100.000 Euro.

Patents **“Device for the dynamic control of the discharge to the ground of the body weight .”** N. ITRM20130307 del 29/11/2014 , N. EP2807940 del 03/12/2014

Schools *INTERNATIONAL SCHOOL OF ATOMIC AND MOLECULAR SPECTROSCOPY* - 26th Course: BIOPHOTONICS Spectroscopy, Imaging, Sensing and Manipulation Istituto di studi avanzati NATO (Erice, Italy) presentation: **“Optical Properties, Morphology and Long Time Degradation of Alq_3 Thin Films”**(2009)

Conferences

1. *Joint Annual Meeting ISMRM-ESMRMB 2018* 16–21 June (Paris, France) oral presentation: “**The dynamic BOLD-CBF coupling during resting-state in the aging brain: a dual-echo pCASL study**”(2018)
2. *The 22th Annual Meeting of the Organization for Human Brain Mapping* 26–30 June (Geneve, Switzerland) presentation : “**The effect of aging on the dynamic BOLD-CBF coupling during resNng-state: a dual-echo pCASL study**”(2016)
3. *The 20th Annual Meeting of the Organization for Human Brain Mapping* 8–12 June (Hamburg, Germany) presentation: “**BOLD resting state connectivity patterns: spin echo versus gradient echo EPI at 3T.**”(2014)
4. *The 18th Annual Meeting of the Organization for Human Brain Mapping* 10–14 Giugno (Pechino, Cina) presentation: “**Sensivity of BOLD response to increasing visual contrast: spin echo versus gradient echo EPI**”(2012)
5. *2009 DGaO/SIOF Joint Meeting* (DGaO/SIOF) 2–5 Giugno (Brescia, Italy) presentation: “**Optical Properties, Morphology and Long Time Degradation of Alq_3 Thin Films**”(2009)
6. *The 14th International Workshop on Inorganic and Organic Electroluminescence & 2008 International Conference in the Science and Tecnology of Emissive Displays and Lighting* (EL2008) (Tivoli,Rome,Italy) presentation: “**Long Time Degradation of Alq_3 Thin Films.**”(2008)
7. *Prime 2008 Pacific RIM Meeting Electrochemical Society and Solid State Science* (EL2008) (Honolulu, Hawaii) presentation: “**Why annealing processes affect the optical properties of Alq_3 films and OLEDs?**”(2008)
8. *The 15th International Conference on Luminescence* (ICL'08) (Lyon, France) cpresentation: “**Effects of isomers and aggregation states on luminescence blue shifts of Alq_3 composites.**”(2008)
9. *The 15th International Conference on Luminescence* (ICL'08) (Lyon, France) presentation: “**Morphological phase transitions in Alq_3 films.**”(2008)
10. *XIII Feofilov Symposium on spectroscopy of crystals doped by rare earth and transition metal ions* Listvyanka, Irkutsk Region, Russia) presentation: “**Thermoluminescence, Glow Curves and Carrier Traps in Colored and Nominally Pure LiF Crystals**”(2007)
11. *The 90th Annual Meeting Laser Science XXII, Organic Photonic and Electronics* (OPE) (Rochester,NY, USA) presentation: “**Effects of External Physical Parameters on Light Emission from Alq_3 .**”(2006)
12. *The 13th International Workshop on Inorganic and Organic Electroluminescence & 2006 International Conference in the Science and Tecnology of Emissive Displays and Lighting* (EL2006) (Jeju,Korea) presentation: “**Photoluminescence and Morphology of Alq_3 Films.**”(2006)
13. *The 15th International Conference of Dynamical Processes in Excited States of Solids* (DPC'05) (Shanghai, Cina) presentation: “**Rayleigh Scattering and Luminescence Blue Shift in Alq_3 Films.**”(2005)
14. *The 14th International Conference on Luminescence* (ICL'05) (Pechino, Cina) presentation: “**Time Evolution of the Emission Band of Alq_3 Films in Open Atmosphere.**”(2005)

I authorise the use of my personal data in compliance with Legislative Decree 196/03.