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Work Experience

EURATOM/EUROfusion

Culham, Oxfordshire (UK)

Visiting Researcher

11/ 2008 – at today

Participation as visiting research to the JET (Joint European Torus) facility Culham Science Centre, Oxfordshire (UK) campaigns under the EFDA/EUROfusion Mission schemes from 2008 until today. Main workplan are: improve diagnostics constraints as Interferometer and Polarimeter into Equilibrium Reconstruction. Analysis and optimization of Polarimetry measurements to improve Equilibrium Reconstruction and machine protection.

University of Rome Tor Vergata

Rende (CS) IT

Researcher

1/ 2007 – at today

A scientific collaboration with the ENEA Frascati- Fusion Department is started. The aim of this collaboration is studying the dust mobilization problem inside the nuclear fusion reactors. In this line he is studying the possibility to measure the evolution of the dusts, in case of losses of void inside the reactors, through the use of laser scattering radiation. On the same collaboration he is analysing signal (n_e and T_e) acquired from High Resolution Thomson Scattering system (HRTS) at JET in Culham (UK). On the same research field collaboration on Polarimetry data analysis has been started. Aim of this research is to demonstrate the possibility to achieve significant plasma parameters using a single diagnostic. Work in progress is exploring the possibility of obtaining an improvement of Equilibrium Reconstruction if Polarimeter data are included in equilibrium code. Last but not least, given the large amounts of data available as in the fusion research, sometimes important information remains hidden in the databases and it can be difficult to identify it manually or with traditional methods. In order to increase the physics output that can be derived from the measurements advances data mining tools has been applied to discover within the databases useful and understandable knowledge that was previously unknown. As expert of Laser diagnostics and applications, he works to develop optical laser based techniques to detect and identify chemical and biological agents in CBRNe field. On this field, he collaborates with several Public and Private Companies at National and International level such as OPCW, ECDC, DLR etc.

He is member of directive board of CRATI Srl Consortium. He is member of Didactic Board of PhD in Industrial Engineering, University of Rome

Tor Vergata. From academic year 2013/2014 he is also Coordinator of First and Second level International Master Courses in “Protection and against of CBRNe events

University of Rome Tor Vergata

Researcher Technician

Rome (RM) IT
2/ 2000 – 12/2006

Research technician at University of Rome “Tor Vergata”. He worked to develop and improve a Lidar/Dial setup and he is involved in the measurements of water vapour cycle and columnar atmospheric contents. He studies aerosol plume emitted by forest fire and its interaction with laser beams. He also studies how to improve the performances of laser sources adopted for Lidar/Dial applications. He studied the possibility to use the Lidar/Dial systems to detect forest fire and reduce the false alarm. At this aim he projected a compact mobile Lidar Dial setup. He begins to work in the field of laser plasma interaction system. He developed a laser plasma system based on a gas supersonic jet of Xenon as target. He utilizes these devices allow relevant applications in microscopy analysis since they permit to obtain images of flash of life of the tested biological sample

University of Calabria C/O CRATI s.c.r.l.

Researcher

Rende (CS) IT
1/ 1998 – 02/2000

Design and develop of a mobile Lidar/Dial setup. In order to test mobile Lidar/Dial setup several measurements campaigns is been made to diffusion into the atmosphere of a plume emitted from factory chimneys. In this period he studied the possibility to inject a CW CO₂ Laser into a TE laser at the aim of future Lidar doppler applications

INFM

Researcher

Rende (CS) IT
1/ 1994 – 12/1997

Design and develop of absorption cell system to measure absorption coefficient of Atmospheric pollutants into IR range using CO₂ laser. Design and develop of ground based of Differential Absorption Lidar system CO₂ laser based in order to measure vertical profiles of water vapour and ozone in atmosphere.

Education

PhD in Quantum Electronics and Plasma Physics, University of Rome Tor Vergata

Rome
10/2003 – 10/2006

Experimental work on, *Laser plasma X-ray and EUV systems: develop, characterization and application to study of alive biological sample*

Master Degree in Physics, University of Calabria

Rende (CS)
11/1988 – 10/1993

Experimental work on *Atmospheric backscattering of IR radiation for environmental application*,
Final Grade: 110/110

Training

International School on “Moder Optical Flow Measurements”	C.I.S.M. Udine, ITALY 10/1997 – 10/1997
International School of Quantum Electronics 24th Course: “Advances in optoelectronics for environmental monitoring	ERICE (TP) IT 11/1998 – 11/1998
International School of Quantum Electronics 27th Course: “Bose-Einstein Condensates And Atom Lasers “,	ERICE (TP) IT 10/1999 – 10/1999
International School of Quantum Electronics 28th Course:” Laser Beam and Optics Characterization (LBOC5) “	ERICE (TP) IT 03/2000 – 03/2000
International Course on “Progress in Laser Sources and Photonic Devices”	CAPRI (NA) IT 09/2002 – 10/2002
Advance course on Multiphysics analysis (COMSOL)	BRESCIA (BS) IT 07/2007 – 07/2007
Advance Labview course	MILANO (MI) IT 05/2014 – 05/2014

Publications

He is the author of over 200 publications in international journals and Conferences indexed on Scopus
Here is a selection of the most relevant publications:

- S Martellucci, C Bellecci, M Francucci, P Gaudio, M Richetta, D Toscano, A Rydzy, M Gelfusa AND P Ciuffa, *Soft X-ray generation by a tabletop Nd:YAG/GLASS laser system*, Journal of Physics: Condensed Matter, 18 2039 – 2044, 2006,
- C. Bellecci, L. Coniglio, M. Francucci, P. Gaudio, S. Martellucci, D. Nanni, M. Richetta, F. Terra, *Laser-plasma soft X-rays analysis by means of a CCD camera: A first application to digital micro-radiography*, Il Nuovo Cimento B, 121, 811, 2007,

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- F. Bonfigli A. Faenov, F. Flora, M. Francucci P. Gaudio A. Lai, S. Martellucci,, R. M. Montereali, T. Pikuz, L. Reale, M. Richetta, M. Aurora Vincenti and G. Baldacchini, *High-resolution water window X-Ray imaging of in vivo cells and their products using LiF crystal detectors*, Microscopy Research and Techniques, 71, pp. 35-41, 2008,
 - C. Oliva, A. Ustone, S. Almaviva. G. Baldacchini, F. Bonfigli, F. Flora, A. Lai, R. M. Montereali, A. Faenov T. Pikuz, M. Francucci, P. Gaudio S. Martellucci, M. Richetta, L. Reale, A. Criscenti, *SNOM images of X-ray radiographs at nano-scale stored in a thin layer of Lithium Fluoride*, Journal of Microscopy, 229, pp. 490-495, 2008,
 - L. Reale, F. Bonfigli, A. Lai, F. Flora, A. Poma, P. Albertano, S. Bellezza, R.M. Montereali, A. Faenov, T. Pikuz, S. Almaviva, M. A. Vincenti, M. Francucci, P. Gaudio, S. Martellucci, M. Richetta, *X-ray Microscopy of Plant Cells by Using LiF Crystal as a Detector*, Microscopy Research and Techniques, 71, pp. 839-848, 2008,
 - F. B, S. Almaviva, G. Baldacchini, F. Flora, A. Lai, R.M. Montereali, M.A. Vincenti, A. Criscenti, C. Oliva, A. Ustione, A. Faenov, T. Pikuz, L. Reale, P. Gaudio, S. Martellucci, M. Richetta. *High-resolved fluorescence imaging of X-ray micro-radiographies on novel LiF detectors*, Proc. Workshop Synchrotron Radiation and Nanostructures, Ed.: A. Criscenti, G. Margheritondo, World Scientific, (2009), p. 40-47,
 - M.Gelfusa, A. Murari, Gaudio P, A. Boboc, M. Brobin, F.P. Orsitto, E. Giovannozzi, *A new calibration code for the jet polarimeter*, Review of Scientific Instruments, vol. 81, p. 5350701-5350713, ISSN: 0034-6748, 2010,
 - F. Bonfigli, Gaudio P, I. Lupelli, E. Nichelatti, M. Richetta, M. A. Vincenti and R. M. Montereali, Characterization of LiF-based soft X-ray imaging detectors by confocal fluorescence microscopy. International Journal of Computational Materials Science and Surface Engineering, vol. 15, ISSN: 1753-3465, 2010,
 - R.M. Montereali, S. Almaviva, F. Bonfigli, A.Criscenti, A. Faenov, F. Flora, Gaudio P, A.Lai, S. Martellucci, E. Nichelatti, T. Pikuz, L.Reale, M.Richetta, M.A.Vincenti, *Lithium fluoride thin-film detectors for soft x-ray imaging at high spatial resolution*. Nuclear Instruments & Methods in Physics Research. Section A, accelerators, spectrometers, detectors and associated equipment, vol. 623, p. 758-762, ISSN: 0168-9002, 2010,
 - M. Gelfusa, A. Murari, Gaudio P, A. Boboc, M. Brobin, F.P. Orsitto, E. Giovannozzi, *A new calibration code for the jet polarimeter*, Review of Scientific Instruments, vol. 81, p. 5350701-5350713, ISSN: 0034-6748, 2010,
 - F.P. Orsitto, A.Boboc, Gaudio P, M. Gelfusa, E.Giovannozzi, C. Mazzotta, A. Murari, and JET-EFDA contributors, *Mutual interaction of faraday rotation and cotton-mouton phase shift in jet polarimetric measurements*, Review of Scientific Instruments, vol. 81, ISSN: 0034-6748, 2010,
 - A.Boboc, M. Gelfusa, A.Murari, Gaudio P, and JET-EFDA contributors, *Recent development on the jet far-infrared interferometer-polarimeter diagnostic*, Review of Scientific Instruments, vol. 81, issn: 0034-6748, 2010,
 - M. Gelfusa, A. Murari, D. Patanè, Gaudio P, A. Boboc, and JET-EFDA contributors, *Validation of joint european torus polarimetric measurements with residual analysis*, Measurement Science & Technology, vol. 21, p. 1-11, ISSN: 0957-0233, 2010,
 - F.P. Orsitto, A. Boboc, Gaudio P, M. Gelfusa, E. Giovannozzi, C. Mazzotta, A. Murari, *Analysis of faraday rotation in jet polarimetric measurements*. Plasma Physics and Controlled Fusion, vol. 53, p. 1-20, ISSN: 0741-3335, 2011,
 - C. Bellecci, Gaudio P, I. Lupelli, A. Malizia, M.T. Porfiri, R. Quaranta, M. Richetta, *Loss of vacuum accident (lova): comparison of computational fluid dynamics (cfd) flow velocities against experimental data for the model validation*, Fusion Engineering and Design, Issn: 0920-3796, 2011,
 - Gaudio P, I. Lupelli, A. Malizia, RNG *k-e modelling and mobilization experiments of loss of vacuum in small tanks for nuclear fusion safety applications*, International Journal of Systems Applications, Engineering & Development, vol. 5, p. 287-305, Issn: 2074-1308, 2011,
 - C. Bellecci, Gaudio P, I. Lupelli, A. Malizia, M.T. Porfiri, R. Quaranta, M. Richetta, *Stardust experimental campaign and numerical simulations: influence of obstacles and temperature on dust resuspension in a vacuum vessel under lova*. Nuclear Fusion, vol. 51, p. 05332-053017, ISSN: 0029-5515, 2011,
 - M. Francucci, Gaudio P, S. Martellucci, M. Richetta, *Spectroscopy Methods and Applications of the Tor Vergata Laser-Plasma Facility Driven by GW-Level Laser System*, International Journal of Spectroscopy, vol. 2011, ISSN: 1687-9449, 2011,
 - C. Bellecci, Gaudio P, I. Lupelli, A. Malizia, M.T. Porfiri, R. Quaranta, M. Richetta, *Validation of a loss of vacuum accident (lova) computational fluid dynamics (cfd) model*, Fusion Engineering and Design, Issn: 0920-3796, 2011,
 - Murari A, Peluso E, Gaudio P, Gelfusa M, Maviglia F, Hawkes N (2012). A statistical investigation of the effects of edge localized modes on the equilibrium reconstruction in JET, Plasma Physics and Controlled Fusion, vol. 54, p. 105005-1050014, ISSN: 0741-3335, 2012,
 - Murari A, Lupelli I, Gaudio P, Gelfusa M, Vega J (2012). *A statistical methodology to derive the scaling law for the H-mode power threshold using a large multi-machine database*, Nuclear Fusion, vol. 52, p. 063016-063016--, ISSN: 0029-5515, 2012,
 - Malizia.A, Lupelli I, D'amico F., Sassolini A., Fiduccia A., Quarta A.M., Fiorito R., Guggiardino A., Richetta M., Bellecci C., Gaudio P (2012). *Comparison of software for Rescue Operation Planning During an Accident in a Nuclear Power Plant*. Defences & T Technical Bulletin, vol. 5, p. 36-45, ISSN: 1985-6571, 2012,
 - Gelfusa M, Murari A, Gaudio P, Boboc A, Mazon D, Avino F, Lupelli I, Orsitto P.F., Tudisco O (2012). *New Approximation and Calibration Methods to Provide Routine Real-Time Polarimetry on JET*, IEEE Transactions on Plasma Science, vol. 40, p. 1149-1161, ISSN: 0093-3813, 2012,
 - Lupelli I, Murari A, Gaudio P, Gelfusa M, Mazon D. Vega j (2013). *A new class of indicators for the model selection of scaling laws in nuclear fusion*, Fusion Engineering and Design, Issn: 0920-3796, 2013,
 - Gaudio P, Gelfusa M, Murari A, Conetta F, Orsitto F.P., Boboc A (2013). *Analysis of JET polarimeter with a propagation code based on the stokes formalism*. IEEE Transactions on Plasma Science, vol. 41, p. 1575-1586, ISSN: 0093-3813, 2013,

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- Gallo R, De Angelis P, Malizia A, Conetta F, Di Giovanni D, Antonelli L, Gallo N, Fiduccia A, D'Amico F, Fiorito R, Richetta M, Bellecci C, Gaudio P (2013). *Development of a georeferencing software for radiological diffusion in order to improve the safety and security of first responders*. Defences & T Technical Bulletin, vol. 6, p. 21-32, ISSN: 1985-6571, 2013,
 - Gaudio P, Gelfusa M, Murari A, Orsitto F, Boboc A (2013). *Effects of the input polarization on JET polarimeter horizontal channels*, Nuclear Instruments & Methods in Physics Research. Section A, accelerators, spectrometers, detectors and associated equipment, ISSN: 0168-9002, 2013,
 - Benedetti M, Gaudio P, Lupelli I, Malizia A, Porfiri M T, Richetta M (2013). *Large eddy simulation of Loss of Vacuum Accident in STARDUST facility*, Fusion Engineering and Design, Issn: 0920-3796, 2013,
 - Murari A, Lupelli I, Gelfusa M, Gaudio P (2013). *Non-power law scaling for access to the H-mode in tokamaks via symbolic regression*, Nuclear Fusion, vol. 53, ISSN: 0029-5515, 2013,
 - Gaudio P, Craciunescu T, Gelfusa M, Hawkes N, Lupelli I, Murari A, Peluso E (2013). *Preliminary investigation of the use of visible images to validate the magnetic reconstruction of the boundary on JET*. Fusion Engineering and Design, vol. 88, p. 1293-1296, Issn: 0920-3796, 2013,
 - Gelfusa M, Murari A, Peluso E, Gaudio P, Orsitto F.P., Gerasimov S (2013). *Preliminary investigations of equilibrium reconstruction quality during ELMs and ELM-free phases on JET*. Nuclear Instruments & Methods in Physics Research. Section A, accelerators, spectrometers, detectors and associated equipment, Issn: 0168-9002, 2013.
 - Lupelli I, Murari A, Gaudio P, Gelfusa M (2013). *Statistical analysis of plasma shape influence on the power threshold to access the H-mode*, Nuclear Instruments & Methods in Physics Research. Section A, accelerators, spectrometers, detectors and associated equipment, vol. 720, p. 88-91, ISSN: 0168-9002, 2013,
 - Murari, A., Gelfusa, M., Peluso, E., Gaudio, P., Mazon, D., Hawkes, N., Point, G., Alper, B., Eich, (2014) T. *Improved equilibrium reconstructions by advanced statistical weighting of the internal magnetic measurements*, Review of Scientific Instruments, 85 (12), art. no. 123507,
 - Peluso, E., Murari, A., Gelfusa, M., Gaudio, P. (2014) *A statistical method for model extraction and model selection applied to the temperature scaling of the L-H transition*, Plasma Physics and Controlled Fusion, 56 (11), art. no. 114001,
 - Gaudio, P., Murari, A., Gelfusa, M., Lupelli, I., Vega, J. (2014) *An alternative approach to the determination of scaling law expressions for the L-H transition in Tokamaks utilizing classification tools instead of regression* Plasma Physics and Controlled Fusion, 56 (11), art. no. 114002,
 - Peluso, E., Murari, A., Lupelli, I., Gelfusa, M., Gaudio, P. (2014), *Symbolic regression via genetic programming to derive empirical models and scaling laws as monomial or polynomial expansions* , 41st EPS Conference on Plasma Physics, EPS 2014, 2014-January,
 - Lupelli, I., Gaudio, P., Gelfusa, M., Malizia, A., Belluzzo, I., Richetta, M., (2014) *Numerical study of air jet flow field during a loss of vacuum* , Fusion Engineering and Design, 89 (9-10), pp. 2048-2052,
 - Malizia, A., Lupelli, I., Richetta, M., Gelfusa, M., Bellecci, C., Gaudio, P. (2014), *Safety analysis in large volume vacuum systems like tokamak: Experiments and numerical simulation to analyze vacuum ruptures consequences* Advances in Materials Science and Engineering, 2014, art. no. 201831,
 - Malizia, A., Camplani, M., Gelfusa, M., Antonelli, L., Barbato, F., Del Vecchio, M., Richetta, M., Salgado, L., Bellecci, C., Gaudio, P. (2014), *Optical techniques to study the dust resuspension problem in case of LOVA: Comparison of results obtained with PIV and Shadowgraph* 41st EPS Conference on Plasma Physics, EPS 2014, 2014,
 - Malizia, A., Camplani, M., Gelfusa, M., Lupelli, I., Richetta, M., Antonelli, L., Conetta, F., Scarpellini, D., Carestia, M., Peluso, E., Bellecci, C., Salgado, L., Gaudio, P. (2014), *Dust tracking techniques applied to the STARDUST facility: First results* Fusion Engineering and Design, 89 (9-10), pp. 2098-2102,
 - Di Giovanni, D., Luttazzi, E., Marchi, F., Latini, G., Carestia, M., Malizia, A., Gelfusa, M., Fiorito, R., D'Amico, F., Cenciarelli, O., Gucciardino, A., Bellecci, C., Gaudio, P. (2014), *Two realistic scenarios of intentional release of radionuclides (Cs-137, Sr-90) - the use of the HotSpot code to forecast contamination extent* WSEAS Transactions on Environment and Development, 10, pp. 106-122,
 - Pirelli, F., Cenciarelli, O., Gabbarini, V., Malizia, A., Famà, G., Sassolini, A., D'Amico, F., Giovanni, D.D., Carestia, M., Palombi, L., Bellecci, C., Gaudio, P. (2014), *Maritime security: Applications and perspectives to combat chemical, radiological and explosive threats* Defence S and T Technical Bulletin, 7 (2), pp. 90-98,
 - Malizia, A., Carestia, M., Cafarelli, C., Milanese, L., Pagannone, S., Pappalardo, A., Pedemonte, M., Latini, G., Barlascini, O., Fiorini, E., Soave, P.M., Di Giovanni, D., Cenciarelli, O., Antonelli, L., D'Amico, F., Palombi, L., Bellecci, C., Gaudio, P. (2014) *The free license codes as decision support system (DSS) for the emergency planning to simulate radioactive releases in case of accidents in the new generation energy plants* (2014) WSEAS Transactions on Environment and Development, 10 (1), pp. 453-464,
 - Murari, A., Peluso, E., Lungaroni, M., Gelfusa, M., Gaudio, P. *Application of symbolic regression to the derivation of scaling laws for tokamak energy confinement time in terms of dimensionless quantities* (2015) Nuclear Fusion, 56 (2), art. no. 026005,
 - Murari, A., Peluso, E., Gelfusa, M., Garzotti, L., Frigione, D., Lungaroni, M., Pisano, F., Gaudio, P. *Application of transfer entropy to causality detection and synchronization experiments in tokamaks* (2015) Nuclear Fusion, 56 (2), art. no. 026006,
 - Pacciani, E., Borri, A., Soave, P.M., Gui, D., Magalini, S., Panunzi, S., Gaz, C.R., Gaudio, P., Malizia, A., De Gaetano, (2015) *A. Modelling and simulation for Major Incidents* Proceedings of the 2015 9th International Conference on Pervasive Computing Technologies for Healthcare, PervasiveHealth 2015, art. no. 7349422, pp. 297-303,
 - Ciparisse, J.F., Malizia, A., Poggi, L.A., Gelfusa, M., Murari, A., Mancini, A., Gaudio, P. (2015) *First 3D numerical simulations validated with experimental measurements during a LOVA reproduction inside the new facility STARDUST-Upgrade*, Fusion Engineering and Design, 101, pp. 204-208,

- Poggi, L.A., Malizia, A., Ciparisse, J.F., Gelfusa, M., Murari, A., Pierdiluca, S., Lo Re, E., Gaudio, P. (2015), *First Experimental Campaign to Demonstrate STARDUST-Upgrade Facility Diagnostics Capability to Investigate LOVA Conditions*, Journal of Fusion Energy, 34 (6), pp. 1320-1330,
- Lupelli, I., Malizia, A., Richetta, M., Poggi, L.A., Ciparisse, J.F., Gelfusa, M., Gaudio, P. (2015), *Simulations and Experiments to Reach Numerical Multiphase Informations for Security Analysis on Large Volume Vacuum Systems Like Tokamaks* Journal of Fusion Energy, 34 (5), pp. 959-978,
- Murari, A., Peluso, E., Gelfusa, M., Lupelli, I., Gaudio, P. (2015), *A new approach to the formulation and validation of scaling expressions for plasma confinement in tokamaks* Nuclear Fusion, 55 (7), art. no. 073009,
- Reale, L., Bonfigli, F., Lai, A., Flora, F., Albertano, P., Di Giorgio, M.L., Mezi, L., Montereali, R.M., Faenov, A., Pikuz, T., Almazov, S., Francucci, M., Gaudio, P., Martellucci, S., Richetta, M., Poma, A. *Contact X-ray microscopy of living cells by using LiF crystal as imaging detector* (2015) Journal of Microscopy, 258 (2), pp. 127-139,
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- Murari, A., Peluso, E., Gelfusa, M., Lungaroni, M., Gaudio, P. *How to handle error bars in symbolic regression for data mining in scientific applications* (2015) Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 9047, pp. 347-355,
- Peluso, E., Gelfusa, M., Murari, A., Lupelli, I., Gaudio, P. *A statistical analysis of the scaling laws for the confinement time distinguishing between core and edge* (2015) Physics Procedia, 62, pp. 113-117,
- Barbato, F., Scarpellini, D., Malizia, A., Gaudio, P., Richetta, M., Antonelli, L. X-ray high-resolution spectroscopy for laser-produced plasma (2015) Physics Procedia, 62, pp. 84-91,
- Murari, A., Peluso, E., Gelfusa, M., Lupelli, I., Lungaroni, M., Gaudio, P. *Symbolic regression via genetic programming for data driven derivation of confinement scaling laws without any assumption on their mathematical form* (2015) Plasma Physics and Controlled Fusion, 57 (1), art. no. 014008,
- Barbato, F., Ciambella, L., Gaudio, P., Montanari, R., Richetta, M., Antonelli, L. *Physical simulation of plasma-tungsten interaction in NFR [Simulazione fisica dell'interazione plasma-tungsteno in NFR]* (2015) Metallurgia Italiana, 107 (7-8), pp. 17-23,
- Malizia, A., Gelfusa, M., Francia, G., Boccitto, M., Del Vecchio, M., Di Giovanni, D., Richetta, M., Bellecci, C., Gaudio, P. *Design of a new experimental facility to reproduce LOVA and LOCA consequences on dust resuspension* (2015) Fusion Engineering and Design, 98-99, pp. 2191-2195,
- Gaudio, P., Malizia, A., Camplani, M., Barbato, F., Antonelli, L., Gelfusa, M., Del Vecchio, M., Salgado, L., Bellecci, C., Richetta, M. *Shadowgraph technique applied to STARDUST facility for dust tracking: First results* (2015) Physics Procedia, 62, pp. 97-101,
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- Poggi, L.A., Malizia, A., Ciparisse, J.F., Tieri, F., Gelfusa, M., Murari, A., Del Papa, C., Giovannangeli, I., Gaudio, P. *STARDUST-U experiments on fluid-dynamic conditions affecting dust mobilization during LOVAs* (2016) Journal of Instrumentation, 11 (7), art. no. C07012,
- Murari, A., Craciunescu, T., Peluso, E., Gelfusa, M., Lungaroni, M., Garzotti, L., Frigione, D., Gaudio, P. *How to assess the efficiency of synchronization experiments in tokamaks* (2016) Nuclear Fusion, 56 (7), art. no. 076008,
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- Malizia, A., Poggi, L.A., Ciparisse, J.-F., Rossi, R., Bellecci, C., Gaudio, P. *A review of dangerous dust in fusion reactors: From its creation to its resuspension in case of LOCA and LOVA* (2016) Energies, 9 (8), art. no. 578,
- Camplani, M., Malizia, A., Gelfusa, M., Barbato, F., Antonelli, L., Poggi, L.A., Ciparisse, J.F., Salgado, L., Richetta, M., Gaudio, P. *Image computing techniques to extrapolate data for dust tracking in case of an experimental accident simulation in a nuclear fusion plant* (2016) Review of Scientific Instruments, 87 (1), art. no. 013504,
- Abate, A., Sassolini, A., Ludovici, G.M., Gaudio, P., Ciparisse, J.-F., Cenciarelli, O., Gallo, R., Carestia, M., Di Giovanni, D., Iannotti, A., Strigari, L., Palombi, L., Bellecci, C., Malizia, A. *The local effects of a global disaster: Case study on the Fukushima radiological emergency management in Italy* (2016) Defence S and T Technical Bulletin, 9 (2), pp. 126-133,

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Personal Skills

Language:

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- English: Level good

Communication/organizational/mangerial skills:

- Scientific Coordinator of Quantum Electronic and Plasma Physics Research Group
- Member of directive board of CRATI Srl Consortium.
- Member of Didactic Board of PhD in Quantum Electronics and Plasma Physics from 2006 up to 2011
- Member of Didactic Board of PhD in Industrial Engineering, University of Rome Tor Vergata from 2011 at today.
- From academic year 2013/2014 he is also Coordinator of First and Second level International Master Courses in “Protection and against of CBRNe events

Computer skills:

- Microsoft Office (Word, Excel, Power Point): Level good

- Labview, Matlab, Zemax, COMSOL, Python: Level good