

**Curriculum Vitae
in formato
Europeo**

Informazioni personali

Nome e Cognome *Piero Fallica*
Attuale Amministrazione di appartenenza *Università degli Studi di Messina*
Attuale responsabilità *Pensionato INPS*
Contatti *Quelli istituzionali, non quelli privati*

Esperienza lavorativa

Ruolo, tipologia di contratto, datore di lavoro
Dal luglio 1981 al novembre 2019 *Ricercatore, contratto nazionale metalmeccanici, STMicroelectronics*
Da ottobre 2020 a settembre 2021 *Collaboratore, contratto di collaborazione, Consorzio INSTM*
Dall'aprile 2022 al dicembre 2022 *borsa di Studio per attività di ricerca post-lauream della Università di Messina*

Istruzione e formazione

Laurea e post lauream
Laurea in Fisica (vecchio ordinamento) conseguita presso l'Università di Catania con voto 110/110

Madrelingua

**Altre competenze
linguistiche**

Per livelli
Inglese – buono
Francese - scolastico

Allegati

All.1: Competenze nell'utilizzo delle tecnologie (preferibilmente per parole chiavi)

All. 2: Partecipazione a convegni e seminari (preferibilmente aggregati per argomento e ore complessive)

All. 3 Redazione di pubblicazioni (elenco o link all'editore)

All. 1 - Competenze nell'utilizzo delle tecnologie (preferibilmente per parole chiavi)

Tecnologie di fabbricazione di dispositivi elettronici a semiconduttore

Optoelettronica

Rivelatori di particelle nucleari a semiconduttore

Strumentazione di base laboratorio elettronico

Programmi di simulazione di dispositivi elettronici

Programmi di statistica

Machine learning

Sensori

Disegno 3D

Matlab

All. 2 - Partecipazione a convegni e seminari (preferibilmente aggregati per argomento e ore complessive)

- *ESSDERC '96 26th European Solid-State Device Research Conference – Bologna 1996*
- Scientific Detector for Astronomy Workshop 2005 (SDW) – Taormina 19 – 24 Giugno 2005
- 2014 Fotonica AEIT Italian Conference on Photonics Technologies, Napoli
- Nanoiinnovation 2019, Roma 11-14 Giugno

All. 3 Redazione di pubblicazioni (elenco o link all'editore)

Anno 1978

1. P.G. Fallica, F. Riggi, C. Spitaleri and M.C. Sutera. – **On the Derivation of the PWIA Cross-Section for Quasi-Free Reactions.** Lettere al Nuovo Cimento Vol. 22 N. 13 – 29 Luglio 1978

Anno 1981

2. P.G. Fallica, M. Lattuada, F. Riggi, C. Spitaleri, M.C. Sutera and D. Vinciguerra. **Treiman-Yang criterion as a test of the pole approximation in the ${}^9\text{Be}({}^3\text{He},\alpha){}^4\text{He}$ reaction** – Phys. Rev. C 24, 1934 – 1 October 1981.
3. P.G. Fallica, M. Lattuada, F. Riggi, C. Spitaleri, M.C. Sutera and D. Vinciguerra. **Experimental Test of the Polar Approximation in the Quasi-Free ${}^9\text{Be}({}^3\text{He},\alpha){}^4\text{He}$ Reaction at Low Energy.** Lettere al Nuovo Cimento, Vol. 30, N. 8, 21 Febbraio 1981.

Anno 1982

4. M. Lattuada, F. Riggi, C. Spitaleri, D. Vinciguerra, P.G. Fallica. **The Neutron Momentum Distribution in ${}^7\text{Li}$ and the Three-Body Reaction ${}^7\text{Li}(d,\alpha)d$.** Il Nuovo Cimento Vol. 72 A, N. 1 – 1° Novembre 1982

Anno 1990

5. S. Bellone, G. Cocorullo, G. Fallica, S. Musumeci. **Current gain enhancement effect by gate doping in bipolar-mode field-effect transistor.** IEEE Transaction on Electron Devices, Volume 37, Issue 1, Jan 1990

Anno 1991

6. P.G. Fallica, S. Cannavò, L. Fragapane, S. Musumeci, G. Ferla. **Development of Large Area Silicon Detectors for Calorimetric Applications.** Nuclear Physics Vol. 23 A. July 1991, pp. 107-113.

Anno 1993

7. P. Spirito, G.V. Persiano, A.G.M. Strollo, G. Fallica. **Evaluation of lateral diffusion factor in silicon from subthreshold current in short-channel vertical SIT test structure.** IEEE Electron Device Letters, (Volume: 14, Issue: 12) Dec. 1993

Anno 1995

8. V. Raineri, P.G. Fallica, G. Percolla, A. Battaglia, M. Barbagallo and S.U. Campisano. **Gettering of metals by voids in silicon.** J. Appl. Phys. 78 (6), 15 September 1995 pp. 3727-3735.

Anno 1996

9. G. Cardella, F. Amorini, M. Cabibbo, A. Di Pietro, G. Fallica, G. Franzò, P. Figuera, S. Li, A. Musumarra, M. Papa, G. Pappalardo, G. Percolla, F. Priolo, V. Privitera, F. Rizzo, S. Tudisco. **A monolithic silicon detector telescope.** Nuclear Instruments and Methods in Physics Research A 378 (1996) pp. 262-266
10. V. Raineri, G. Fallica, S. Libertino. **Lifetime control in silicon devices by voids induced by He ion implantation.** J. Appl. Phys. 79 (12), 15 June 1996, pp. 9012-9016

Anno 1998

11. A. Musumarra, F. Amorini, M. Cabibbo, G. Cardella, G. De Geronimo, A. Di Pietro, P.G. Fallica, P. Figuera, M. Papa, G. Pappalardo, F. Rizzo, S. Tudisco. **Implanted Silicon detector telescope: New developments.** Nuclear Instruments and Methods in Physics Research A 409 (1998), pp. 414-416.

Anno 1999

12. S. Tudisco, F. Amorini, M. Cabibbo, G. Cardella, G. De Geronimo, A. Di Pietro, G. Fallica, P. Figuera, A. Musumarra, M. Papa, G. Pappalardo, F. Rizzo, G. Valvo. **A new large area monolithic silicon telescope.** Nuclear Instruments and Methods in Physics Research A 426 (1999) pp 436-445.
13. N. Randazzo, G. V. Russo, C. Caligiore, D. Lo Presti, C. Petta, S. Reito, L. Todaro, G. Fallica, G. Valvo, M. Lattuada, S. Romano and A. Tumino. **Integrated Front-End for a Large Strip Detector with E, ΔE and Position Measurements.** IEEE Transaction on Nuclear Science Vol. 46, No. 5, October 1999.

Anno 2002

14. F. Iacona, D. Pacifici, A. Irrera, M. Miritello, G. Franzò, and F. Priolo, D. Sanfilippo, G. Di Stefano, and P.G. Fallica. **Electroluminescence at 1.54 μm in Er-doped Si nanocluster-based devices.** Appl. Phys. Letters, Vol. 81, No.17 21 Oct 2002 pp. 3242-3244
15. A. Irrera, D. Pacifici, M. Miritello, G. Franzò, F. Priolo; F. Iacona, D. Sanfilippo, G. Di Stefano and P.G. Fallica. **Excitation and de-excitation properties of silicon quantum dots under electrical pumping.** Appl. Phys. Letters Vol. 81, No. 10, 2 Sep. 2002, pp. 1866-1868

16. G. Franzò, A. Irrera, E. C. Moreira, M. Miritello, F. Iacona, D. Sanfilippo, G. Di Stefano, P.G. Fallica, F. Priolo. **Electroluminescence of silicon nanocrystals in MOS structures** (Invited Paper) Appl. Physics A 74, 1-5 (2002).
17. G. Segneri, L. Borrello, R. Dell'Orso, S. Dutta, P.G. Fallica, M. Mariani, A. Messineo, A. Starodumov, L. Teodorescu, G. Tonelli, G. Valvo, P.G. Verdini - **Results with microstrip detectors produced by STMicroelectronics for the CMS tracker**. Nuclear Instruments and Methods in Physics Research A 476 (2002) 729–733.
18. L. Borrello, J. Bernardini, R. Dell'Orso, S. Dutta, P.G. Fallica, A. Giassi, A. Messineo, O. Militaru, G. Segneri, A. Starodumov, L. Teodorescu, G. Tonelli, G. Valvo, P.G. Verdini, **Production and tests of very high breakdown voltage silicon detectors** - IEEE Transactions on Nuclear Science, Volume: 49, Issue: 3, Page(s): 1035 – 1039 - Jun 2002

Anno 2003

19. E. Sciacca, A.C. Giudice, D. Sanfilippo, F. Zappa, S. Lombardo, R. Cosentino, C. Di Franco, M. Ghioni, G. Fallica, G. Bonanno, S. Cova, and E. Rimini. **Silicon Planar Technology for Single-Photon Optical detectors**. IEEE Trans. El. Dev. Vol. 50, No. 4, April 2003.
20. Irrera, D. Pacifici, M. Miritello, G. Franzò, F. Priolo, F. Iacona, D. Sanfilippo, G. Di Stefano, P.G. Fallica. **Electroluminescent properties of light emitting devices based on silicon nanocrystals**. Physica E 16 (2003) 395-399.

Anno 2004

21. P. Finocchiaro, A. Campisi, D. Corso, L. Cosentino, G. Fallica, S. Lombardo, M. Mazzillo, F. Musumeci, A. Piazza, G. Privitera, S. Privitera, E. Rimini, D. Sanfilippo, E. Sciacca, A. Scordino, S. Tudisco. **Test of scintillator readout with single photon avalanche photodiodes**. IEEE-TNS Nov 12, 2004 pp8.
22. M. Belluso, M.C. Mazzillo, G. Bonanno, S. Billotta, S. Scuderi, A. Cali, A. Miccichè, M.C. Timpanaro, D. Sanfilippo, P.G. Fallica, E. Sciacca, S. Lombardo, and A. Morabito. **SPAD Array Detectors for Astrophysical Applications**. Memorie della Società Astronomica Italiana Vol. 75, 282.
23. M. Manghisoni, L. Ratti, V. Re, V. Speciali, G. Traversi, G. Fallica. **Gamma-ray response of SOI bipolar junction transistor for fast, radiation tolerant front-end electronics**. Nuclear Instruments and Methods in Physics Research A - Volume 518 (2004) 477-481
24. M. Manghisoni, L. Ratti, V. Re, V. Speciali, G. Traversi, G. Fallica and S. Leonardi **Noise Analysis of NPN SOI Bipolar Transistors for the Design of Charge**

Measuring Systems. IEEE Trans. On Nuclear Science, Vol. 51, No.3, June 2004 pp980-986.

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- 26.A. Irrera, M. Miritello, D. Pacifici, G. Franzó, F. Priolo, F. Iacona, D. Sanfilippo, G. Di Stefano, P.G. Fallica. **Electroluminescent properties of SiO_x layers implanted with rare earth ions.** Nuclear Instruments and Methods in Physics Research B 216 (2004) 222-227.

Anno 2005

- 27.F. Amorini, A. Bonanno, G. Cardella, A. Di Pietro, G. Fallica, P. Figuera, A. Morea, A. Musumarra, M. Papa, G. Pappalardo, A. Pinto, F. Rizzo, W. Tian, S. Tudisco, G. Valvo. **Monte: A compact and versatile multidetector system based on monolithic telescopes.** Nuclear Instruments and Methods in Phys. Research A 550 (2005) 248-257.
- 28.A. Irrera, F. Iacona, G. Franzó, S. Boninelli, D. Pacifici, M. Miritello, C. Spinella, D. Sanfilippo, G. Di Stefano, P.G. Fallica, F. Priolo. **Correlation between electroluminescence and structural properties of Si nanoclusters.** Optical Materials 27 (2005) 1031- 1040.
- 29.L. Ratti, M. Manghisoni, E. Oberti, V. Re, V. Speciali, G. Traversi, G. Fallica and R. Modica. **Response of SOI Bipolar Transistors Exposed to γ -Rays Under Different Dose Rate and Bias Condition.** IEEE Nuclear Science Symposium Medical Imaging Conference. IEEE Transaction on Nuclear Science Vol. 52, No. 4, August 2005, pp. 1040-1047.

Anno 2006

- 30.P. Finocchiaro, A. Campisi, L. Cosentino, A. Pappalardo, F. Musumeci, S. Privitera, A. Scordino, S. Tudisco, G. Fallica, D. Sanfilippo, M. Mazzillo, A. Piazza, J. Van Erps, M. Vervaeke, B. Volckaerst, P. Vynck, A. Hermanne, H. Thienpont, S. Lombardo, E. Sciacca. **A New Generation of low-voltage single-photon micro -sensors with timing capability.** Nuclear Instruments and Methods in Physics Research A, 567 (2006) 83-88.
- 31.E. Sciacca, S. Lombardo, M. Mazzillo, G. Condorelli, D. Sanfilippo, A. Contissa, M. Belluso, F. Torrisi, S. Billotta, A. Campisi, L. Cosentino, A. Piazza, G. Fallica, P. Finocchiaro, F. Musumeci, S. Privitera, S. Tudisco, G. Bonanno, E. Rimini.

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- 32.R. Mita, G. Palumbo, P.G. Fallica. **A fast driver circuit for single-photon sensors.** Microelectronics Journal 37 (2006) pp 1092-1096.
- 33.S. Tudisco, L. Cosentino, G. Fallica, P. Finocchiaro, F. Musumeci, A. Scordino, D. Sanfilippo, G. Privitera, S. Privitera, H. Thienpont, M. Vervaeke, B. Volckaerts, P. Vynck. **SINPHOS – SINGLE PHOTON Spectrometer for biomedical application.** Nuclear Physics B (Proc. Suppl.) 150 (2006) 317-320.
- 34.A. Irrera, F. Iacona, I. Crupi, C. Lo Presti, G. Franzò, C. Bongiorno, D. Sanfilippo, G. Di Stefano, A. Piana, P.G. Fallica, A. Canino and F. Priolo. **Electroluminescence and transport properties in amorphous silicon nanostructures.** Nanotechnology 17 (2006) 1428-1436.
- 35.D. Presti, A. Irrera, G. Franzò, I. Crupi, F. Priolo, F. Iacona, G. Di Stefano, A. Piana, D. Sanfilippo, P.G. Fallica. **Photonic-crystal silicon nanocluster light-emitting device.** Applied Physics Letters 88, 033501 (2006).
- 36.A. Irrera, F. Iacona, G. Franzò, A. Canino, D. Sanfilippo, G. Di Stefano, A. Piana, P.G. Fallica, and F. Priolo. **Light emitting devices based on Si nanoclusters: the integration with a photonic crystal and electroluminescence properties.** Optoelectronics Lett. 3, 321 (2007).
- 37.A. Irrera, G. Franzò, F. Iacona, A. Canino, G. Di Stefano, D. Sanfilippo, A. Piana, P.G. Fallica, F. Priolo. **Light emitting devices based on silicon nanostructures.** Physica E 38 (2007) 181–187.
- 38.F. Amorini, G. Bottiglieri, L. Caponetto, G. Cardella, A. Di Pietro, G. Fallica, P. Figuera, E. Leonora, D. Lo Presti, A. Morea, M. Papa, G. Pappalardo, C. Petta, N. Randazzo, S. Reito, F. Rizzo, G.V. Russo, V. Sipala, G. Valvo. **Performance and perspectives of silicon detector telescopes.** Nuclear Physics B – Proceedings Supplements Vol. 150, January 2006, Pages 227-230 (Proceedings of the 9th Topical Seminar on Innovative Particle and Radiation Detectors).
- 39.M. Belluso, M.C. Mazzillo, G. Bonanno, S. Billotta, S. Scuderi, A. Calì, A. Miccichè, M.C. Timpanaro, D. Sanfilippo, P.G. Fallica, E. Sciacca, S. Lombardo, and A. Morabito - **SPAD Array Detectors for Astrophysical Applications.** Memorie della Società Astronomica Italiana - Vol. 9, pag. 430.
- 40.F. Priolo, C.D. Presti, G. Franzò, A. Irrera, I. Crupi, F. Iacona, G. Di Stefano, A. Piana, D. Sanfilippo, and P.G. Fallica. **Carrier induced quenching processes on erbium luminescence in silicon nanocluster devices.** Physical Review B 73, 113302 (2006).
- 41.C. Consolandi, P. D'Angelo, G. Fallica, R. Mangoni, R. Modica, S. Pensotti, P.G. Rancoita. **Systematic investigation of monolithic bipolar transistors**

irradiated with neutrons, heavy ions and electrons for space applications.

Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms Volume 252, Issue 2, November 2006, Pages 276–284.

Anno 2007

42. A. Campisi, L. Cosentino, P. Finocchiaro, A. Pappalardo, F. Musumeci, S. Privitera, A. Scordino, S. Tudisco, G. Fallica, D. Sanfilippo, M. Mazzillo, G. Condorelli, A. Piazza, G. Valvo, S. Lombardo, E. Sciacca, G. Bonanno, M. Belluso. **Multipixel Geiger Mode Photon Detectors for Ultra Weak Light Sources.** Nuclear Instruments and Methods in Physics Research A 571(2007) 350-354.
43. P. Finocchiaro, A. Campisi, L. Cosentino, A. Pappalardo, F. Musumeci, S. Privitera, A. Scordino, S. Tudisco, G. Fallica, D. Sanfilippo, M. Mazzillo, A. Piazza, J. Van Erps, S. Van Overmeire, M. Vervaeke, B. Volckaerts, P. Vynck, A. Hermanne, H. Thienpont, S. Lombardo and E. Sciacca. **SPAD array and micro-optics: toward a real single photon spectrometer.** Journal of Modern Optics Vol.54, N° 2-3, pag.199-212, 2007
44. M. Mazzillo, G. Condorelli, D. Sanfilippo, G. Fallica, E. Sciacca, S. Aurite, S. Lombardo, E. Rimini, M. Belluso, S. Billotta, A. Campisi, L. Cosentino, P. Finocchiaro, F. Musumeci, S. Privitera, S. Tudisco. **Silicon Geiger Mode avalanche photodiodes.** Optoelectronics Letters Vol.3 No.3, 15 May 2007.
45. M. Mazzillo, G. Condorelli, A. Campisi, E. Sciacca, M. Belluso, S. Billotta, D. Sanfilippo, G. Fallica, L. Cosentino, P. Finocchiaro, F. Musumeci, S. Privitera, S. Tudisco, S. Lombardo, E. Rimini, G. Bonanno. **Single photon avalanche photodiodes arrays.** Sensor & Actuators A, Vol 138, pp. 306-312 (2007).
46. S. Privitera, R. Modica, V. Cerantonio, P. G. Fallica, G. Pappalardo. **Locos induced stress effects on SOI bipolar devices.** Microelectronics Reliability 47 (2007) 802-805.

Anno 2008

47. M. Mazzillo, G. Condorelli, A. Piazza, D. Sanfilippo, G. Valvo, B. Carbone, G. Fallica, S. Billotta, M. Belluso, G. Bonanno, A. Pappalardo, L. Cosentino, P. Finocchiaro. **Single-Photon avalanche photodiodes with integrated quenching resistor.** Nuclear Instruments and Methods in Physics Research A 591 (2008) 367-373.
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Mode Avalanche Photodiode Arrays. IEEE Electron Device Letters, Vol. 29 NO. 3, March 2008 pp. 218-220

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- 50.S. Tudisco, F. Musumeci, L. Lanzaò, A. Scordino, S. Privitera, A. Campisi, L. Cosentino, G. Condorelli, P. Finocchiaro, G. Fallica, S. Lombardo, M. Mazzillo, D. Sanfilippo, and E. Sciacca. **A New Generation of SPAD – Single-Photon Avalanche Diodes.** IEEE Sensors Journal, Vol.8 No.7, Jul 2008 p 1324-1329
- 51.L. Neri, S. Tudisco, L. Lanzaò, F. Musumeci, S. Privitera, A. Scordino, G. Condorelli, G. Fallica, M. Mazzillo, D. Sanfilippo, G. Valvo. **SPID: Single Photon Imaging Device.** Proc. Of SPIE Vol. 7021 702129-1 (2008)
- 52.P. Finocchiaro, A. Pappalardo, L. Cosentino, M. Belluso, S. Billotta, G. Bonanno, B. Carbone, G. Condorelli, S. Di Mauro, G. Fallica, M. Mazzillo, A. Piazza, D. Sanfilippo, G. Valvo. **Characterization of a novel 100-Channel Silicon Photomultiplier – Part I: Noise.** IEEE Trans. On Electron Dev. 2008 Sep. 24 – VOL.55, NO.10, p.2757
- 53.P. Finocchiaro, A. Pappalardo, L. Cosentino, M. Belluso, S. Billotta, G. Bonanno, B. Carbone, G. Condorelli, S. Di Mauro, G. Fallica, M. Mazzillo, A. Piazza, D. Sanfilippo, G. Valvo. **Characterization of a novel 100-Channel Silicon Photomultiplier – Part II: Charge and Time.** IEEE Trans. On Electron Dev. 2008 Sep. 24 – VOL.55, NO.10, p.2757.
- 54.M. Mazzillo, A. Piazza, G. Condorelli, D. Sanfilippo, G. Fallica, S. Billotta, M. Belluso, G. Bonanno, L. Cosentino, A. Pappalardo, and P. Finocchiaro. **Quantum Detection Efficiency in Geiger Mode Avalanche Photodiodes.** IEEE Trans. On Nucl. Science –Vol 55, N.6, 31 Dec 2008 pp 3620-3625.
- 55.R. Mita, G. Palumbo, and P.G. Fallica. **Accurate model for single-photon avalanche diodes.** Inst. Eng. and Techn. IET Circuits Devices Syst., 2008, 2, (2), pp.207-212.
- 56.Agosteo S., Fallica P.G., Fazzi A. Introini M.V., Pola A. Valvo G. **A Pixelated Silicon Telescope for Solid State Microdosimetry.** Radiation Measurements, Vol 43, Issues 2-6 (2008) Pages 585-589 .
- 57.F. Amorini, V. Sipala, G. Cardella, C. Boiano, B. Carbone, L. Cosentino, E. Costa, A. Di Pietro, U. Emanuele, G. Fallica, P. Figuera, P. Finocchiaro, E. La Guidara, C. Marchetta, A. Pappalardo, A. Piazza, N. Randazzo, F. Rizzo, G.V. Russo, P. Russotto, C. Scirè, S. Scirè, A. Trifirò, M. Trimarchi, G. Valvo -

Imaging monolithic silicon detector telescopes. Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment - Volume 589, Issue 2, 1 May 2008, Pages 280–289

Anno 2009

58. Sergio Billotta, Massimiliano Belluso, Giovanni Bonanno, Salvatore Di Mauro, Maria Cristina Timpanaro, G. Condorelli, P. Giorgio Fallica, Massimo Mazzillo, Delfo Sanfilippo, Giuseppina Valvo, Luigi Cosentino, Paolo Finocchiaro, Alfio Pappalardo, Gianpiero Naletto, Tommaso Occhipinti, Claudio Permechele, Cesare Barbieri. **Characterization of detectors for the Italian Astronomical Quantum Photometer Project.** Journal of Modern Optics Vol. 56, Nos. 2-3, 20 January-10 February 2009, 273-283. Online publication: 01 January 2009.
59. Massimo Mazzillo, Giovanni Condorelli, Delfo Sanfilippo, Giuseppina Valvo, Beatrice Carbone, Giorgio Fallica, Sergio Billotta, Massimiliano Belluso, Giovanni Bonanno, Luigi Cosentino, Alfio Pappalardo, and Paolo Finocchiaro. **Silicon Photomultiplier Technology at STMicroelectronics.** IEEE Trans. on Nuclear Science, Vol. 56, No. 4, August 2009 pp. 2434-2442.
60. S. Tudisco, L. Lanzaò, F. Musumeci, L. Neri, S. Privitera, A. Scordino, G. Condorelli, G. Fallica, M. Mazzillo, D. Sanfilippo, G. Valvo. **Bi-dimensional array of SPAD for time-resolved single photon imaging.** Nuclear Instruments and Methods in Physics Research A 610 (2009) 138-141.
61. F. Amorini, V. Sipalal, G. Cardella, L. Auditore, C. Boiano, B. Carbone, A. Di Pietro, G. Fallica, P. Figuera, P. Finocchiaro, L. Grassi, E. La Guidara, P. Guazzoni, I. Lombardo, D. Loria, A. Pappalardo, A. Piazza, S. Pirrone, N. Randazzo, F. Rizzo, G.V. Russo, P. Russotto, C. Scirè, A. Trifirò, M. Trimarchi, G. Valvo, L. Zetta. **Monolithic silicon telescope as position sensitive detector** - Nuclear Physics B – Proceedings Supplements Vol. 197, 15 December 2009, Pages 194-197 (Proceedings of the 11th Topical Seminar on Innovative Particle and Radiation Detectors – IPRD08).

Anno 2010

62. L. Neri, S. Tudisco, L. Lanzaò, F. Musumeci, S. Privitera, A. Scordino, G. Condorelli, G. Fallica, M. Mazzillo, D. Sanfilippo and G. Valvo. **Design and Characterization of Single Photon Avalanche Diodes Arrays.** Nuclear Instruments and Methods in Physics Research Section A, Vol. 167, Issue 1-3, 11 May 2010-21, pagg. 432-433.
63. M. Mazzillo, G. Condorelli, D. Sanfilippo, G. Valvo, B. Carbone, A. Piana, G. Fallica, A. Ronzhin, M. Demarteau, S. Los, E. Ramberg, - **Timing Performances**

of Large Area Silicon Photomultipliers Fabricated at STMicroelectronics. IEEE Transactions on Nuclear Science, Volume: 57, Issue: 4, Part: 2 - Publication Year: 2010, Page(s): 2273 – 2279.

64. Lorenzo Neri, Salvatore Tudisco, Francesco Musumeci, Agata Scordino, Giorgio Fallica, Massimo Mazzillo and Massimo Zimbone. **Generalization of DT Equations for Time Dependent Sources.** Sensors 2010, 10(12), 10828-10836

Anno 2011

65. G. Condorelli, D. Sanfilippo, G. Valvo, M. Mazzillo, D. Bongiovanni, A. Piana, B. Carbone, G. Fallica. **Extensive Electrical Model of Large Area Silicon Photomultipliers.** Nuclear Instruments and Methods in Physics Research A654 (2011) 127–134.

66. L. Neri, S. Tudisco, F. Musumeci, A. Scordino, G. Fallica, M. Mazzillo, M. Zimbone. **Dead Time of Single Photon Avalanche Diodes.** Nuclear Physics B (Proc. Supplements) 215 (2011) 291-293.

Anno 2012

67. A. Ronzhin, M.G. Albrow, S. Los, E. Ramberg, Y. Guo, H. Kim, A. Zatserklyaniy, M. Mazzillo, B. Carbone, G. Condorelli, P. Fallica, A. Piana, D. Sanfilippo, G. Valvo, S. Ritt. **Waveform digitization for high resolution timing detectors with silicon photomultipliers.** Nuclear Instruments and Methods in Physics Research A 668 (2012) 94–97.

68. Massimo Mazzillo, Anatoly Ronzhin, Sergey Los, Salvatore Abbisso, Delfo Sanfilippo, Giusy Valvo, Beatrice Carbone, Angelo Piana, Giorgio Fallica, Michael Albrow, and Erik Ramberg; **Electro-Optical Performances of p-on-n and n-on-p Silicon Photomultipliers.** IEEE Transactions on Electron Devices, VOL. 59, NO. 12, DECEMBER 2012.

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