Scientific publications

1. D. Passeri et al., *Characterization of CMOS Active Pixel Sensors for particle detection: Beam test of the four sensors RAPS03 stacked system*, Nucl. Instr. and Meth. A 617 (2010) 573-575.

2. S. Meroli et al., *A grazing angle technique to measure the charge collection efficiency for CMOS Active Pixel Sensors*, Nucl. Instr. and Meth. A 650 (2011) 230–234, doi:10.1016/j.nima.2010.12.122.

3. D.Passeri,et al. *Tilted CMOS Active Pixel Sensors for Particle Track Reconstruction*, IEEE Nucl. Sci. Symp. Conf. Rec. NSS09 (2009) 1678.

4. D. Biagetti et al. *Beam test results for the RAPS03 non-epitaxial CMOS active pixel sensor*, Nucl. Instr. and Meth. A 628 (2011) 230–233.

5. L. Amaral et al., *A 5 Gb/s Radiation Tolerant Laser Driver*, Proc. of the Topical Workshop on Electronics for Particle Physics, Paris (2009), 321-325.

6. D. Passeri, L. Servoli, S. Meroli, *Analysis of 3D stacked fully functional CMOS Active Pixel Sensor detectors*, 2009 JINST 4 P04009.

7. T. Ozdemir et al., *A combined approach to the simulation of ionizing radiation effects in silicon devices*, 2011 JINST 6 T0500, doi:10.1088/1748-0221/6/05/T05001.

8. S. Meroli et al., *Development of a Laser Driver test setup for SLHC experiments*, Nuclear Physics B (Proc. Suppl.) 215 (2011), 218–221.

9. L. Servoli et al., *Use of a standard CMOS imager as position detector for charged particles*, Nuclear Physics B (Proc. Suppl.) 215 (2011), 228-231.

10. S. Meroli et al., *Energy loss measurement for charged particles in very thin silicon layers* , 2011 JINST 6 P06013, doi: 10.1088/1748-0221/6/06/P06013.

11. D. Passeri et al., *3D monolithically stacked CMOS active pixel sensor detectors for particle tracking applications*, 2012 JINST 7 C08008, doi:10.1088/1748-0221/7/08/C08008.

12. L. Bissi et al., *Calibration of a pixel sensor using both fluorescence and transmitted X-ray photons*, Nucl. Instr. and Meth. A (2012), http://dx.doi.org/10.1016/j.nima.2012.10.092.

13. S. Meroli et al., *Analysis of the performance of CMOS APS imager after proton damage*, 2013 *JINST* **8** C02002 doi:10.1088/1748-0221/8/02/C02002.

14. S. Meroli et al, *Measurement of charge collection efficiency profiles of CMOS Active Pixel Sensors*, JINST **7** P09011 doi:10.1088/1748-0221/7/09/P09011.

15. D. Passeri et al., *Vertically Integrated CMOS Active Pixel Sensors for Tracking Applications in HEP Experiments*, IEEE Nucl. Sci. Symp. Conf. Rec. NSS/MIC (2012) 1330.

16. L. Servoli et al., *Measurement of submicrometric intrinc spatial resolution for Active Pixel Sensors*, next to be published.

Conference contributions

1. A. Marras et al, *Multilayer CMOS APS sensors integrated in CMOS vertical scale technology (3D) for particle detection*, presented at the 7th International Meeting on Front-End Electronics, New York (USA), 2010.
2. A. Marras et al., *Design of a Monolithic Momentum Detector using a 3D IC Vertical Integration Approach*, presented at Workshop on Vertically Integrated Pixel Sensors. Pavia (Italy), April 22-24 2010
3. A. Marras et al., *3D monolithic-sensor approach to particle detection*, presented at the VCI2010 Vienna Conference on Instrumentation 2010, February 15-20th, 2010
4. L. Servoli et al., *Characterization of monolithic two-tier Active Pixel Sensors for tracking applications*, presented at 9th International Conference on Radiation Effects on Semiconductor Material Detectors and Deviced, Florence (Italy), October 9-12 2012

CMS contributions

1. M. De Palma et al., *Development of pixel and micro-strip sensors on radiation tolerant substrates for the tracker upgrade at SLH*, CMS Sensor upgrade proposal (2008).
2. CMS Collaboration, *CMS technical design report for the pixel detector upgrade*.

Supervision for the following thesis

1. Keida Kanxheri, *Analisi numerica 3D di dispositivi fotosensibili per rivelatori di radiazione* Bachelor degree in electronic and informatic engineering.
2. Arianna Morozzi, *Analisi numerica 3D di sensori di immagine a pixel attivi* Bachelor degree in electronic and informatic engineering.
3. Yhidad Calle, *Analisi numerica 3D di sensori di radiazione integrati in tecnologia CMOS* Bachelor degree in electronic and informatic engineering.
4. Filippo Maria Lombardi, *Caratterizzazione di Transceiver Elettroottici ad alte prestazioni*, Bachelor degree in electronic and informatic engineering.
5. Antonio Nigro, *Simulazione di prototipi di dispositivi a semiconduttore*, Bachelor degree in electronic and informatic science.
6. Ledian Piperkv, *Simulazione 3D dei passi del processo di fabbricazione per sensori attivi CMOS,* Bachelor degree in electronic and informatic engineering
7. Alessandro Cazzorla, *Automatic characterization of an Electro-Optic tranceiver,* Master degree in electronic engineering.
8. Marco Becagli, *Modelli per la simulazione dell'interazione di singole particelle ionizzanti con rivelatori integrati in silicio,* Master degree in electronic engineerig.