

Stanford



Andrea Gonzalez Montoro

Postdoctoral Research Fellow, Molecular Imaging Program at Stanford

Bio

BIO

Dr. Gonzalez-Montoro's research interests involve the development of novel Positron Emission Tomography (PET) instrumentation for an accurate in vivo imaging of the metabolic processes and the study of diseases in humans and small animals.

In addition to obtain a high efficiency of PET scanners when combined with MRI or CT scanners, my research focusses on instrumentation projects related to enhance the sensitivity and 3D spatial, and/or temporal resolutions.

PROFESSIONAL EDUCATION

- Bachelor of Science, Universidad De Valencia (2014)
- Master of Science, Universidad De Valencia (2015)
- Doctor of Philosophy, Universidad De Valencia (2019)

Research & Scholarship

LAB AFFILIATIONS

- Craig Levin, Molecular Imaging Instrumentation Lab (3/27/2019)

Publications

PUBLICATIONS

- **Novel method to measure the intrinsic spatial resolution in PET detectors based on monolithic crystals** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*
Gonzalez-Montoro, A., Sanchez, F., Bruyndonckx, P., Canizares, G., Benlloch, J. M., Gonzalez, A. J.
2019; 920: 58–67
- **TOF studies for dedicated PET with open geometries**
Moliner, L., Ilisie, V., Gonzalez, A., Oliver, S., Gonzalez, A., Gimenez-Alventosa, V., Canizares, G., Lamprou, E., Alamo, J., Sanchez, F., Rodriguez, M. J., Benlloch, J. M.
IOP PUBLISHING LTD.2019
- **PET detector block with accurate 4D capabilities**
Lamprou, E., Aguilar, A., Gonzalez-Montoro, A., Monzo, J. M., Canizares, G., Iranzo, S., Vidal, L. F., Hernandez, L., Conde, P., Sanchez, S., Sanchez, F., Gonzalez, A. J., Benlloch, et al
ELSEVIER SCIENCE BV.2018: 132–36
- **Detector block performance based on a monolithic LYSO crystal using a novel signal multiplexing method**
Gonzalez-Montoro, A., Sanchez, F., Marti, R., Hernandez, L., Aguilar, A., Barbera, J., Catret, J. V., Canizares, G., Conde, P., Lamprou, E., Martos, F., Sanchez, S., Vidal, et al

ELSEVIER SCIENCE BV.2018: 372–77

- **Feasibility Study of a Small Animal PET Insert Based on a Single LYSO Monolithic Tube** *FRONTIERS IN MEDICINE*
Gonzalez, A. J., Berr, S. S., Canizares, G., Gonzalez-Montoro, A., Orero, A., Correcher, C., Rezaei, A., Nuyts, J., Sanchez, F., Majewski, S., Benlloch, J. M.
2018; 5: 328
- **A scintillator geometry suitable for very small PET gantries**
Gonzalez, A. J., Gonzalez-Montoro, A., Aguilar, A., Canizares, G., Marti, R., Iranzo, S., Lamprou, E., Sanchez, S., Sanchez, F., Benlloch, J. M.
IOP PUBLISHING LTD.2017
- **Highly improved operation of monolithic BGO-PET blocks**
Gonzalez-Montoro, A., Sanchez, F., Majewski, S., Zanettini, S., Benlloch, J. M., Gonzalez, A. J.
IOP PUBLISHING LTD.2017
- **Performance Study of a Large Monolithic LYSO PET Detector With Accurate Photon DOI Using Retroreflector Layers** *IEEE TRANSACTIONS ON RADIATION AND PLASMA MEDICAL SCIENCES*
Gonzalez-Montoro, A., Aguilar, A., Canizares, G., Conde, P., Hernandez, L., Vidal, L. F., Galasso, M., Fabbri, A., Sanchez, F., Benlloch, J. M., Gonzalez, A. J.
2017; 1 (3): 229–37
- **PETIROC2 based readout electronics optimization for Gamma Cameras and PET detectors** *JOURNAL OF INSTRUMENTATION*
Monzo, J. M., Aguilar, A., Gonzalez-Montoro, A., Lamprou, E., Gonzalez, A. J., Hernandez, L., Mazur, D., Colom, R. J., Benlloch, J. M.
2017; 12
- **Performance study of a PET scanner based on monolithic scintillators for different DoI-dependent methods** *JOURNAL OF INSTRUMENTATION*
Preziosi, E., Sanchez, S., Gonzalez, A. J., Pani, R., Borrazzo, C., Bettiol, M., Rodriguez-Alvarez, M. J., Gonzalez-Montoro, A., Moliner, L., Benlloch, J. M.
2016; 11
- **Pilot tests of a PET detector using the TOF-PET ASIC based on monolithic crystals and SiPMs** *JOURNAL OF INSTRUMENTATION*
Aguilar, A., Gonzalez-Montoro, A., Gonzalez, A. J., Hernandez, L., Monzo, J. M., Bugalho, R., Ferramacho, L., Benlloch, J. M.
2016; 11
- **Analysis of the Statistical Moments of the Scintillation Light Distribution With dSiPMs** *IEEE TRANSACTIONS ON NUCLEAR SCIENCE*
Conde, P., Gonzalez, A. J., Gonzalez, A., Hernandez, L., Bellido, P., Crespo, E., Iborra, A., Moliner, L., Rigla, J. P., Rodriguez-Alvarez, M. J., Sanchez, F., Seimetz, M., Soriano, et al
2015; 62 (5): 1981–88