

ROMAN GOMEZ, Ph.D.

Roman Gomez, PhD is a Senior Research Scientist at Southwest Research Institute, San Antonio, Texas. In this capacity he develops, calibrates, and assists with data analysis from plasma instruments currently on spacecraft. He was instrumental in the MMS-HPCA (Hot Plasma Composition Analyzer) mission (launched 2015) to survey the Earth's Magnetopause for magnetic reconnection events, and IES-Rosetta ion and electron spectrometer to measure plasma characteristics of comet 67P/Churyumanov-Gerasimenko as it interacts with solar wind.

Roman Gomez hails from San Antonio, Texas, and is heavily involved in the community. He briefs and inspires youth, at-risk teenagers, and college hopefuls in science, career, and educational matters.



EDUCATION

1988, Graduate, Highlands High School, San Antonio, TX
1988, Basic Combat Training, Fort Benning, GA
1988, US Army Infantry School, Fort Benning, GA
2002, BS Degree, Physics & Biology, Southwest Texas State University, San Marcos, TX
2007, Master's Degree in Physics, Rice University, Houston, TX
2011 PhD, Physics, Rice University, Houston, Texas

EMPLOYMENT

1988 - 1991, Infantryman, US Army
2008 to present, Senior Research Scientist, Southwest Research Institute, San Antonio, TX
2014, Adjunct Professor of Physics, Northwest Vista College, San Antonio, TX
2017, Adjunct Professor of Physics, St. Mary's University, San Antonio, TX
2018, Adjunct Professor of Physics, University of Texas, San Antonio, TX

PUBLICATIONS AND MAJOR AWARDS

2002, Summa Cum Laude, Southwest Texas State University, San Marcos, TX
2007, Master's Thesis "Characterization of the Xenon-10 Dark Matter Detector with Regard to Electric Field and Light Response"
2011, PhD Thesis "Simulation and Optimization of ESA Designs for Space Plasma Missions"
2014, Hot Plasma Composition Analyzer for the Magnetospheric Multiscale Mission, Space Science Reviews
2016, Stable Reconnection at the Dusk Flank Magnetopause, Geophysical Research Letters
2019, The Extra-Magnetospheric Ion Environment as Observed by the Magnetospheric Multiscale Mission Hot Plasma Composition Analyzer (MMS-HPCA)

PROFESSIONAL MEMBERSHIPS

American Geophysical Union
American Physical Society
European Geophysical Union
Society of Physics Students
Sigma Pi Sigma Physics Honorary

OTHER ACHIEVEMENTS

2012, Calibration Leader, Hot Plasma Composition Analyzer of the Magnetospheric Multiscale Mission (MMS mission)

(Current as of September 2019)