

Evgeny N. Kuznetsov.
Biographical Sketch.

Current Position: Research engineer VI. Center for Space Plasma and Aeronomic Research,
University of Alabama - Huntsville

Education :

M.S., National Research University. Moscow, Russia, 1988

B.S. Moscow Technical School for Radio System Design. Moscow, Russia 1980

Professional Experience :

April 2001 – Current. Research engineer VI. University of Alabama in
Huntsville(UAH) / Center for Space Plasma and Aeronomic Research. Huntsville/ AL,
USA

September 1988 - April 2001. Design engineer. Nuclear Physics Institute of the
Moscow State University, Russia

1991 - 1998 Visiting scientist, ZEUS detector electronics design.
DESY, Hamburg, Germany

February 1982 – August 1988. Research scholar. Russian Institute of Space Device
Engineering (RISDE), Moscow, Russia

Current Research:

The Extreme Universe Space Observatory for Investigating Extreme Energy Cosmic Rays;
Design of the Advanced Neutron Spectrometer for space explorations;
Design concept development of the novel temperature-compensated Silicon Photomultiplier
sensor.

Biography

Evgeny Kuznetsov, a Research Engineer VI of the Center for Space Plasma and Aeronomic Research (CSPAR) received his Radio engineering Master degree from the National Research University of Moscow, Russia in 1988. Early carrier starts at the Moscow State University and includes involvement in designs of readout electronics for high energy physics experiments at particle accelerator in Protvino, Russia and high altitude mountain station Aragatz in Armenia.

Next 10 years Evgeny spent working as a visiting researcher at the Deutsches Electronen Synchrotron (DESY) designing of a slow control system for the experiment ZEUS and supporting operation of the front end electronics of the Hadron Electron Separator. At 2001 Evgeny was employed by the UAH. He designed front-end electronics for several ground based, balloon and space born instruments for astrophysics research. He designed readout electronics for charge detector of the high altitude balloon experiment ATIC and supported four flight campaigns in Antarctica. Recent projects are Super-Pressure Balloon-2 for Extreme Universe Space Observatory (EUSO-SPB2), scheduled for launch from New Zealand in 2023, front-end design of the Advanced Neutron Spectrometer(ANS), which is in operation on ISS from November 2017 and neutron counter instrument for Lunar Lander.

Recent Grants and Contracts

Development of a Photon Detection Module for the Detection of Cosmogenic Neutrinos (NASA NNH17ZDA001N-APRA) - \$1,139,499

EUSO-SPB2 a second generation Extreme Universe Space Observatory (EUSO) on a Super-Pressure Balloon (NNH16ZDA001N-APRA) - 1,159,605.00

Selected Publications:

The calibration of EUSO Balloon using airborne light sources mounted to a helicopter. James Adams et al., The 34th International Cosmic Ray Conference, 30 July- 6 August, 2015 The Hague, The Netherlands.

Possible structure in the cosmic ray electron spectrum measured by the ATIC-2 and ATIC-4 experiments". A. D. Panov et al., *Astrophys. Space Sci. Trans.*, 7, 119-124, 2011

An excess of cosmic ray electrons at energies of 300–800 GeV. J. Chang et al., *Nature* 456, 362–365. 20 November 2008

A balloon-borne prototype for demonstrating the concept of JEM-EUSO, P. von Ballmoos et al., *Advances in Space Research*, 53, 1544-1550 (2014)

Calibration aspects of the JEM-EUSO mission, J.H. Adams, Jr. et al., *Exp. Astron.*, DOI 10.1007/s10686-015-9453-2 (2015)

The EUSO-Balloon pathfinder, J.H. Adams, Jr. et al., *Exp. Astron.*, *Exp. Astron.*, DOI 10.1007/s10686-015-9467-9 (2015).

Temperature-compensated silicon photomultiplier, E.Kuznetsov, *NIMA*, Volume 912, 21 December 2018, Pages 226-230