

Curriculum Vitae

- Name and address:** **József Kóta**
Senior Research Scientist, Lunar & Planetary Laboratory
rm. 419 Space Sciences, University of Arizona
Tucson, AZ 85721 - 0092, USA
Telephone: (520) 621-4256 Fax: (520) 626-8250
e-mail: kota@lpl.arizona.edu
- Personal:** Born August 29, 1944, Tata (county Komárom), Hungary
US citizen since 2001
- Education:** 1967 - B.S. (honors) Roland Eötvös University
Budapest, Hungary
1980 - Candidate of Physical Sciences / PhD at
Roland Eötvös University, Budapest, Hungary.
- Positions:** Senior Research Scientist - University of Arizona
April 2003 - present
Staff Scientist - University of Arizona,
July 1996 - April 2003
Visiting Scientist - University of Arizona
(April 1985 – July 1987, August 1989 – June 1996)
Senior Research Scientist - KFKI
(Central Research Institute of Physics)
Budapest, Hungary, May 1984 – August 1989
(held adjoint position August 1989 – 2012)
Research Scientist - KFKI, Budapest, Hungary
September 1967 – May 1984
- Fellowship:** Visiting Scientist - University of Nagoya (3 mos),
April 2012 – June 2012
Visiting Scientist - University of Tokyo (3 mos),
October 2007 – January 2008
JSPS Long-term Fellowship - Shinshu University (2 mos)
March 2005 – May 2005
Visiting Scientist - University of Arizona (1 mo), 1988
Visiting Scientist - Durham University, UK (1 year),
December 1972-December 1973

**Experience in
Higher Education:**

Thesis advisor for:
Dr. Károly Kecskeméty, received his Ph.D. in 1977
Dr. Ákos Körösmezey, received his Ph.D. in 1984
both in Budapest, Hungary

Research Interest:

Galactic and anomalous cosmic-rays in the Heliosphere,
solar modulation and anisotropies of cosmic rays.
Theoretical and numerical modeling of the transport
and acceleration of charged energetic particles.
Space Weather, solar energetic particles.
Solar wind, modeling the evolution of shock waves,
interaction of solar wind and interstellar matter.
Anisotropies of cosmic rays in the 20 GeV - 10 TeV region

**Professional
Memberships:**

American Geophysical Union
Roland Eötvös Physical Society, Hungary
COSPAR Associate

**Professional
Services:**

Member of Cosmic Ray Commission of IUPAP
1984-1990
Member of Astronomy & Astrophysics Board
of European Physical Society, 1984-1990
Associate Editor, JGR Space Physics, 1993-1997

Awards:

KFKI 'Jánossy Award', Hungary 1976 and 1980
'Selényi Pál Award' of Roland Eötvös
Physical Society, Hungary, 1977
JGR 'Excellence in Refereeing', 1997

Publications:

101 in refereed journals
together with >75 in conference proceedings
altogether 3460 citations

**Invited Talks
in last 5 years:**

15th Int. Astrophys. Symp., Cape Coral, FL, 2016
14th Int. Astrophys. Symp., Tampa Bay, FL, 2015
12th Int. Astrophys. Symp., Myrtle Beach, NC, 2013
Nagoya University, Nagoya, Japan, 2012
Shinshu University, Matsumoto, Japan, 2012
11th Int. Astrophys. Symp., Palm Springs, CA, 2012
10th Int. Astrophys. Symp., Maui, HI, 2011
Int. Symp. ASTRONUM, San Diego, Ca, 2010
ISSI Workshop, Bern, Switzerland, 2010

Past Grants:

NASA IBEX Guest Investigator, 2009-2014 (P.I.)
NASA Heliospheric Physics: 'Shock vs Turbulence: 'Particle Acceleration...', 2008-2013 (P.I.)
NASA LWS: 'Physical Models of Cosmic Rays... 2008-2012 (P.I.)
NSF 'Comprehensive Corona and Heliospheric Model 2006 - 2011 *Arizona P.I.*
NASA 'Energetic particles and the Earth Environment in Space' 2005 - 2008 (P.I.)
NSF 'High Performance Adaptive Framework for Global Space Weather', 2001-2006 (Arizona P.I.)
NSF 'Study of acceleration and transport of energetic ions via Energetic Neutral Atoms (ENA)', 2001-2004
NASA 'Transport equations of cosmic rays', 1995-2001
NASA 'Cosmic-ray Diffusion', 1991-1995 (P.I.)

Current Grant:

NASA LWS Collaborative Research: 'Geophysically Relevant Prediction of Solar Cycle 25' (*Arizona P.I.*)

Selected Publications:

- 'Interpretation of the Disturbance in Galactic Cosmic Rays Observed on Voyager-1 beyond the Heliopause', Jokipii, J.R., and J. Kóta, *Astrophys. J.*, **794L**, 4 (2014)
- 'Long-term Variation of the Solar Diurnal Anisotropy of Galactic Cosmic Rays Observed with the Nagoya Multi-directional Muon Detector', Munakata, K., M. Kozai, C. Kato, and J. Kóta, *Astrophys. J.*, **791**, 22 (2014)
- 'Are Cosmic Rays Modulated beyond the Heliopause?', J. Kóta and J.R. Jokipii, *Astrophys. J.*, **782**, 24 (2014)
- 'Theory and modeling of cosmic rays: Trends and Prospects', J. Kóta, *Space Sci. Rev.*, **176**, 391 (2013)
- 'Particle Acceleration at Near-perpendicular Shocks: the Role of Field Line Topology', J. Kóta, *Astrophys. J.*, **723**, 393 (2010)
- 'Velocity Correlation and the Spatial Diffusion Coefficients of Cosmic Rays: Compound Diffusion', J. Kóta and J.R. Jokipii, *Astrophys. J.*, **531**, 1067 (2000)
- 'Corotating variations of Cosmic Rays near the South Heliospheric Pole', J. Kóta and J.R. Jokipii, *Science*, **268**, 5213 (1995) – 64 citations
- 'The Polar Heliospheric Magnetic Field', J.R. Jokipii and J. Kóta, *Geophys. Res. Lett.*, **16**, 1 (1989) – 284 citations
- 'Effects of Drifts on the Transport of Cosmic Rays - A 3-dimensional Model including Diffusion' J. Kóta and J.R. Jokipii, *Astrophys. J.*, **265**, 573 (1983) – 299 citations