

## Arkhangelskaja Irene

Position: senior researcher, assistant

at the Department of Nuclear Physics

and Cosmophysics of National Research Nuclear  
University “MEPhI”, Moscow



### I Scientific Work

In the recent period Arkhangelskaja's research includes investigation of GRB spectra, temporal profiles and the shape of GRB redshift and duration distributions. Also she analyzes problem of high energy emission during GRB and solar flares including neutral mesons production in pp interactions at high energies.

### II Conferences and educational activities

#### *Conferences and Other External Scientific Work*

Conferences:

- 1) 11th European Solar Physics Meeting "The Dynamic Sun: Challenges for Theory and Observations" (ESA SP-600), Leuven, Belgium, 2005
- 2) International Symposium SEE 2007: Fundamental Science and Applied Aspects (2007, Athens, Greece)
- 3) XI Marcel Grossmann Meeting (2006, Berlin, Germany)
- 4) 37th COSPAR Scientific Assembly (2008, Montréal, Canada)
- 5) XII Marcel Grossmann Meeting (2009, Paris, France)

ICRANET seminar: 23/10/2008 High energy gamma-emission of GRBs observed in experiments on various satellites

Invited lectures:

The applicability of fractal analysis for GRB temporal profiles studying, Rome, 2005

A possibility of existence third GRB class - intermediate GRBs, Pescara, 2005

Work With Students

Lectures “Actual problems of Micro- and Cosmophysics” for five-year students in National Research Nuclear University “MEPhI”, Moscow, Russia

oral exams in the course of lectures “Actual problems of Micro- and Cosmophysics” (from 15 to 30 students, depends of year)

Rangel Lemos Luis Juracy (ICRA) - consultations

#### *Diploma thesis supervision*

Kolchina Maria (MEPhI) The investigation of faint solar flares on data of AVS-F apparatus onboard CORONAS-F satellite (2009-2010)

Amandzolova Dalia (MEPhI) The investigation of quasistationary equatorial precipitations on data of AVS-F apparatus onboard CORONAS-F satellite (2006-2007)

Kalmykov Pietr (MEPhI) The development of the software for processing of spectral information from scintillation detectors onboard CORONAS series satellites (2006-2007)

### **III Service activities**

#### *Within ICRANet*

Member of International Coordinating Committee of Marcel Grossmann Meeting (2009)

Chair of section “Long GRB” on the XI Marcel Grossmann Meeting (2006)

#### *Outside ICRANet*

Secretary of section “Astrophysics and Cosmophysics” on the every year conference “Science Session MEPhI” (2007-

### **2009 List of Publications**

Arkhangelskaja I.V., Arkhangelskiy A.I., Kotov Yu. D. et al. AVS-F observations of gamma-ray emission during January 20, 2005 solar flare up to 140 MeV, *Advances in Space Research*, v. 43, Issue 4, 2009, pp. 589-593

Arkhangelskaja I.V., Arkhangelskiy A.I., Kotov Yu. D. et al. Thin structure of temporal profiles of solar flares January 15, 17 and 20, 2005 by data of AVS-F apparatus onboard CORONAS-F satellite, *Advances in Space Research*, v. 43, Issue 4, , 2009, pp. 542-546.

Troitskaya E. V., Arkhangelskaja I.V., Arkhangelskiy A. I. et al. Study of the 28 October 2003 and 20 January 2005 solar flares by means of 2.223 MeV gamma-emission line, *Advances in Space Research*, v. 43, Issue 4, 2009, pp. 547-552

Arkhangelskaja I.V., Troitskaya E. V., Arkhangelskiy A. I. et al. The investigation of powerful solar flares characteristics by analysis of excited states of  $^{12}\text{C}$  and various neutrons capture lines, *Advances in Space Research*, v. 43, Issue 4, 2009, pp. 594-599