

**Participation of the Armenian delegation in UN/ESA/NASA/JAXA Workshop on the International Heliophysical Year 2007 and Basic Space Science "First Results from the International Heliophysical Year 2007" hosted by the Solar-Terrestrial Influences Laboratory of the Bulgarian Academy of Sciences, on behalf of the Government of Bulgaria**

*2-6 June 2008, Sozopol, Bulgaria*

*CRD delegation to conference include 5 CRD employees supported by EU projects and 2 students of Yerevan State University, supported by UN and NASA.*

*Totally 4 oral and 8 poster presentations were delivered. All presentations were based on the Aragats Space Environmental Center (ASEC) data and on the first results from starting SEVAN particle detector network, initiated and guided by CRD. UN office of Outer Space Office issued special certificate confirming the support to SEVAN (see attached).*

*During conference the INTAS 8777 project meeting was held with collaborators from Germany, Swiss and Israel. The current activity was examined and was decided to continue hardware modifications at Aragats and also perform detailed detector simulation. For it Artur Reymers was planned to visit Bern University for 2 weeks in August 2008.*

*During meetings with Bulgarian and Croatian SEVAN group members was demonstrated the SEVAN construction; the mechanical parts of Photomultiplier (PM) housings prepared by Croatian group were examined and fitted to PM brought by Armenian group; all design details were discussed and confirmed. Visit of Armenian experts to Bulgaria and Croatia for final detector assembling were planned for Summer – Autumn 2008.*

*The current status of new started Neutron Monitor Data Base (NMDB) project were discussed with Swiss representative Rolf Bitgofer from Bern University; was clarified the Armenian input to the working program. The attention was invited to DVIN 5 program and neutron monitor electronics developed by the Armenian group, now under testing in CRD.*

*A. Chilingarian in his report emphasis importance and necessity of the world-wide networks of particle detectors such as NM network (with recent developments such as EU supported NMDB project) and muon detectors network, coordinated by Nagoya and Shinshu universities. A. Reymers demonstrated advantages of new created SEVAN particle detector network measuring simultaneously 3 species of secondary cosmic rays.*

***LIST of CRD Presentations***

***Oral***

- 1. A. Hovhanissyan et al, Parameters of the Aragats Space-environmental Center monitors as measured at start of 24th Solar Cycle*
- 2. A. Yeghikyan, WEB based Data Visualization and processing tools for ASEC and SEVAN particle detector networks*
- 3. A. Chilingarian, Surface Particle Detectors in Space Weather forecast*
- 4. A. Reymers et al, Hybrid particle-detector network located at Middle-Low latitudes for Solar Physics and Space Weather research*

***Posters***

1. *A.Chilingarian, A.Hovhannissyan, T.Karapetyan, B.Mailyan, A.Reymers*, Parameters of the Aragats space-environmental center monitors as measured at start of 24 -th solar cycle
2. *A.Chilingarian, A.Reymers*, Characteristics of the particle detectors of the space environmental viewing and analysis network(SEVAN)
3. *Suren Chilingaryan, Sergei Abovyan, Varuzhan Danielyan, Ashot Chilingarian*, Advanced data acquisition system for ASEC experiment
4. *A.Chilingarian, A.Reymers*, Characteristics of the particle detectors of the space environmental viewing and analysis network (SEVAN)
5. *S.Abovyan, K.Arakelyan, A.Chilingarian, V.Danielyan, D.Pokhsraryan*, Electronics for the space environmental viewing and analysis network (SEVAN)
6. *A.Chilingarian, G.Hovsepyan, K.Arakelyan, A.Avetisyan, S.Chilingarian, V.Danielyan, K.Avakyan, A.Reymers, S.Tserunyan*, On the possibility to modernize existent network of neutron monitors
7. *A.Chilingarian, A.Hovhanissyan, T.Karapetyan, B.Mailyan, A.Reymers*, Barometric coefficients of the neutron monitors located at slopes of mountain aragats corresponding to the times of thermalized neutron collection
8. *A.Chilingarian, V.Eganov, A.Hovhanissyan, T.Karapetyan, B.Mailyan, A.Reymers*, Daily variation in intensity of different species of secondary cosmic rays as measured by the particle detectors of aragats space environmental center at minimum of solar activity



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02 June 2008

Dear Professor Chilingarian,

**INTERNATIONAL HELIOPHYSICAL YEAR 2007 (IHY 2007)  
SEVAN**

On behalf of the United Nations Office for Outer Space Affairs (UNOOSA), I would like to congratulate you and your colleagues for your contributions to the world-wide activities to observe IHY 2007, specifically through SEVAN – Space Environmental Viewing and Analysis Network. We fully support your initiatives and would like to inform you that results of SEVAN have been duly recorded in a recent UN General Assembly documents (A/AC.105/902) which has been brought to the attention of UN Member States in the session of the Scientific and Technical Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS) in February 2008.

In accordance with the United Nations General Assembly resolution 60/99, the Scientific and Technical Subcommittee of the UNCOPUOS is considering an agenda item on the IHY 2007 under the three-year work plan adopted at the forty-second session of the Subcommittee for 2006-2008 and extended to 2009 by the forty-fifth session of the same Subcommittee.

IHY 2007 was and will be in the future a vehicle of advancing our understanding of the heliophysical processes that govern the Sun, Earth and heliosphere, (ii) continuing a tradition of international collaboration on the 50<sup>th</sup> anniversary of the International Geophysical Year 1957, and (iii) demonstrating the beauty, relevance, and significance of space and Earth science to the world.

Thank you very much for your cooperation.

Yours sincerely,

A handwritten signature in blue ink, which appears to read "Hans J. Haubold", is positioned above the printed name.

Hans J. Haubold

**Professor Dr. A. Chilingarian**  
**SEVAN**  
**Alikhanyan Physics Institute**  
**Alikhanyan Brothers 2**  
**Yerevan 375036**  
**ARMENIA**



**Figure 1** CRD group preparing poster session. From left to right: *A.Yeghikyan, A.Reymers, K.Arakelyan, 1 year master student A.Hovhanissyan, second year master student T.Karapetyan, G. Hovsepyan*



**Figure 2** After INTAS collaboration meeting: background from left to right: *A.Hovhanissyan, A.Yeghikyan, K.Arakelyan, T.Karapetyan*; foreground: *R. Buetikofer, Bern University, R.Hippler,*

the INTAS project coordinator, Greifswald University, L.Dorman, Tel-Aviv University, A.Chilingarian, CRD, L.Pustilnik, Tel-Aviv University.



Figure 3 Gagik Hovsepyan with chair of IHY steering committee Joe Davila (NASA), explaining SEVAN



**Figure 4 Armenian delegation with senior scientist of UN office of outer space Hans Huboldt and Jadranka Rosa from Zagreb observatory**



**Figure 5 Explaining for Croatian scientists how SEVAN modules should be assembled**



**Figure 6 Armenian boys and Bulgarian girl; visiting the gifted children school**