



4055 McPherson Lab, 140 W.  $18\mathrm{th}$  Ave Columbus, OH 43210, USA Tel: 1-614-292-1773, Fax:  $1\text{-}614\text{-}292\text{-}2928}$  Web: www.astronomy.ohio-state.edu

# "APS FOR THE THIRD WORLD AND ARAB PHYSICISTS"

# Sultana N. Nahar

Astronomy Department, The Ohio State University, Columbus, Ohio, USA Tel: 1-614-292-1888, Fax: 1-614-292-2928 Email: nahar@astronomy.ohio-state.edu

# ABSTRACT:

This proposal aims to bring the physicists from the Third World, such as from the Asian and Arab coounties to the network of the American Physical Society through a proposed APS Unity Network (APS-UN) membership. These physicists are highly motivated and carrying out research devotedly with limited resources. However, they are largely isolated and very often unaware of the advanced research in developed countries. They have sincere desire for more exposures of the cutting edge research and some guidance to raise the bar of their academic standard. They are keen on collaborative research and training, especially with the US. Being the most prominent and active society for the physicists, APS can play the most effective leadership role to this large community of physicists, There are several problems associated to this union to APS. Fortunately, they are not difficult to solve. The most critial problems currently are i) the high APS membership fee, ii) difficulties in getting US Visa, and iii) expensive trip for conferences. To circumvent the problems, I would like to propose to introduce the discount

membership network, APS-UN, which has input from a very large community of physicists. The objectives of this proposal are very much in achord with the recent 5 year Strategic Plan of APS.

## INTRODUCTION:

I have been working to promote physics education and research in Bangladesh for a long time, and the effort has now expanded to few other countires. The effort was basically by myself, until I was recommended to work with FIP and to stand for one vacant position of a member-at-large at FIP. The position has given me the scope to expedite my effort enormously. Bringing the physicists of the Third World World counties under the APS will be a big step toward narrowing the huge gap between two communities, one with advanced research and one with devoted group working largely in isolation.

I have been very enthusiastic and encouraged by the approval of the motion for my initial proposal for bringing them under a discount membership, APS United Network APS-UN, during the last FIP EC meeting held in Atlanta in April 2012. It gave the propect of getting all of these devoted and motivated physicists under the APS. While the words "devotion" and "motivation" truly describe them, the research standard is in general lower than that is carried out in the developed countries. When I watch their beaming faces of research accomplishment, I admire them. However, they appear not to be aware of the problems and the advances that have been made. They express desire to connect, be involved in cutting edge research and solve problems and be part of advance research. It is a very large community who are working in a manner isolated from the advanced research in the developed countries. Since the last meeting I travelled to United Arab Emirates, India, and Egypt and had the opportunities to discuss the proposal with many physicists in Asian and Arab countries. With their input, I have finalized the present proposal to present at the FIP EC meeting for submission to APS EC with input from the FIP.

In October 2012, I received an encouraging letter from Dr. Kate Kirby, the Executive Officer of APS dated October 4, 2012. It contained the right attitude and for the physicists of the Asian and Arab countries. The statement in the letter mentions the approved motion adopted under the 5 year "Strategic Plan" of APS and it says

"Attracting and serving a diverse and inclusive membership worldwide is a primary goal for APS. In calling for nominations, we wish to remind you how important it is to give full consideration to qualified women, members of underrepresented minority groups, and scientists from outside the United States".

# **BACKGROUND:**

I would like to give a brief backgound of myself and why I would like to submit this proposal. I have been attending conferences since I was a graduate student. But I do not meet Bangladeshi scientists in these conferences and no one seems to know any university of Bangladesh still now. Even Dhaka University, where Professor Satyen Bose of Bose-Einstein theory was a professor and served as the Physics chair for 25 years, is not known. Professor Bose moved to India in his later age. The contrasting fact is that Indian scientists, who live next to Bangladesh, are very much active in research and well known and all their institutions seem to be known outside India.

To bring the scientific cummunity of Bangladesh to the advanced research, I started working since

1995. In January 1995 I visited Dhaka University with a few thousand dollars and asked the Physics Chair whether an annual physics research award can be initiated. The purpose was to motivate research and give recognition for publications. The idea was new and took several years to convey the message of importance of research publications and go to conferences for interactions and presentations.

After years of work, now there two Physics reseach prizes for any scientist in Bangladesh, one is annual for contributing research publication and one is for lifetime contributions in physics. Recognition is encouraging more publications. I have also initiated and am working for best physics teaching as well as research guidance awards, and student scholarships in 5 research universities, STEM program in two non-research universities and four other schools. Two of the are only for women. The objectives of these programs is to improve in-class teaching, research involving students, and intellectual and inspirational interactions between teachers and students. In return for improvement of academic excellence, the students nominate the teachers, from whom they learnt most, to be awarded. It is an effective STEM program for improvement of in-class teaching, interactions, and research involument.

The need for such improvedment is not unique in Bangladesh. It exists in other Indian educational institutions, and in other countries. I am involved with such STEM programs at a few universities in a few countries, such as, Aligarh Muslim University in India, Cairo University and Al Azhar University in Egypt. These are very old univerities with large number of students and hence with heavy teaching load. The encourement for recognition help in upgrading the excellence. However, my projects are small compred to the improvement needed.

I am co-founder, with Professor Lotfia El Nadi of Cairo laser institute NILES and professor of Physics of Cairo University, of the International Society of Arab Women in Science. It has now about 230 members from seven Middle Eastern and African countries.

I am the founder of the International Society of Muslim Women in Science (ISMWS) for encouraging Muslim women to science profession. It has now over 100 members from 23 countries.

However, a biggest step will be achieved by binging the physicists of the Third World and Arab worls to APS. The latest development with The APS Strategic Plan will bring enhance coordinated collaboration and faster advances for science.

# ISSUES WITH APS MEMBERSHIP:

Implementation of the APS strategic plan requires resolving a some longstanding issues through a few steps. The most crucial problems are i) the high APS membership fee, ii) difficulties in getting US Visa, and iii) expensive trip for conferences. To find out the impotance of these issues and their comments, I conducted a survey on the research issues with physicists of a number of countries. I expanded the questions of survey to more physicists since the first one I presented at the FIP EC meeting last year. The survey included physicits from African, Arab, and Asian, countries, such as,: Bangladesh, Egypt, India, Iran, Iraq, Jordan, Lebanon, Oman, Pakistan, Saudi Arabia, Sudan, Syria, Tatarstan, Turkey, and United Arab Emirates. It also inquired their interest in APS and be in the network APS-UN. The survey also included help from Dr. Tamer Elkafrawy at Ain Shams University in Egypt, faculty member Akeel

Huaasin of Basrah University in Iraq, Physics Chair Sabieh Anwar of LUMS School of Science and Engineering, Dr. Kassef of Quaid-e-Azam University in Pakistan, Physics Chair Maamar Benkrauda of United Arab Emirates University, Physics Chair S M Mujibur Rahman of Sultan Qaboos University of Oman, Dr. Laila Babsail of Saudi Arabia, and Indian Physicists attending the CDAMOP conference in Delhi, 2011.

Follwing are the survey summary result. The important fact "Everyone is interested in APS & its membership"

Question 1: How many APS members do you have?

Answer 1: Bangladesh: None (1!), Egypt: Few ( $\leq$  3), India: Few (my contact), Iraq: None, Oman: 1, Pakistan: None, UAE: Few

Reason for low membership: i) Expensive membership fee, ii) Have not heard of APS

Why expensive:

Typical Monthly Income of a physicist: Bangladesh (  $\sim$  \$100), Egypt ( $\sim$  \$200), India ( $\sim$  \$950), Iraq ( $\sim$  \$2000), Oman (Reasonable), Pakistan (\$1500-2000), UAE (\$6000)

Question 2: What could be the fair membership fee?

Answer 2: Bangladesh: \$5, Egypt (& other developing Arab countries): \$5 or free, India: \$10-15, Pakistan: \$15-20, Iraq: \$75, Oman: \$50, UAE: \$70 & \$1000 for lifetime memberhsip

Question 3: Can the Science and Education Department of the government help in membership fee through a society like Bangladesh Physical Society?

Answer 3: Bangladesh, Egypt, Iraq, Pakistan: The government can if it wants, but helping in membership to a scientific organization is not of no general interest - difficult to work with government officials. India: Difficult to work

Question 4: Do you go to APS conferences?

Answer 4: Bangladesh: No (most expensive & visa), Egypt: No (most expensive & visa), India: Yes if DST grant is granted, Iraq: No, Oman:

No (expensive & visa), Pakistan: No, most expensive, UAE: No (expensive & visa)

Question 5: Which conferences do you go?

Answer 5: Bangladesh: Bangladesh regional, & in India, Middle East, China, Europe (with government grant & visa - ~1 one grant per lifetime), Egypt: Regional, Middle East, & sometime in China, Europe, India: Any conference with grant, Pakistan: Limited, Oman: Middle East, China, Europe, UAE: Middle East, China, Europe

Their Wishlist: APS involvement and providing some good speakers

Question 6: Do you have access to APS journals?

Answer 6: Bangladesh: Very limited, Egypt: on campus internet, India: Most of them, Iraq: No (Some access in the past), Oman: Wants individual discount access, UAE: generally yes

Question 7: What can FIP do for you?

Answer 7: All countries: Give cheaper membership fee and organize conference in their countries.

Each, except Iraq, has facility to hold the conferences. Egypt particularly asked for conference every other year. Egypt and UAE say they are in the most convenient location for Middle Eastern, African, even Asian physicists to attend

I provied the information on i) APS free individual membership, available on need basis, ii) group discount available through regional organizations, iii) additional supportive letter available for visa application.

i) Individual application was good, but no one has gone through the application process, even the best physicists very well deserved to be APS Fellows through FIP, ii) Oganizations are inefficient, iii) supportive letter work sometime and does not work for US visa. Only the Indian scientists appear to know about it.

# PROPOSAL FOR APS MEMBERSHIP

PROPOSE: Based on the input I received, I would suggest that we, FIP EC, propose the motivating APS-UN (Unity Network) membership for any physicist in the developing and Arab countries. It is a discount membership membership with the following benefits at low cost to APS:

- i) APS-UN membership fee \$10-\$15
- ii) Receive APS electronic announcements
- iii) Receive APS electronic newsletter
- iv) Right to contribute to APS newsletter
- v) Right to participate in APS conferences as a member
- vi) Right to apply for the registration waiver or discuount registration fee in APS conferences as a member
- vii) Receive discount on APS journals
- viii) May engage in APS projects
- ix) Apply for any APS travel grant for conference presentations
- x) May cast votes in APS elections
- xi) Right to hold APS regional conferences under APS banner and policies
- xii) Right to receive APS awards and fellowships
- This is similar to that offered by some other organizations (e.g. IEEE) and societies (e.g. INWES) for members in the developing nations. If we consider bringing these physicists to unity network as one of FIP's important goals, we should accommodate the interested individual physicists with a fee that they are able to pay, We can always revise the fee as the situation improves. The most important outcome will be that these physicists will have the opportunity to know the others in the developed countries and be able to interact for advanced research

I believe, we FIP EC can make the right change for the Physicists of Developing and Arab Nations.

# We submit the proposal

Note: The list of Physicists in my email network for APS membership information is given below.

• Finally, I would like to say a few things about ISMWS, the International Society of Muslim Women in Science. We have increased the number of members to over 170 from 26 countries. We are still trying to register it. Many members seek for support for conference attendance, short time crisis while they are in some other contries for study or research. I collect job and grant applications to put them at the ISMWS website.

With best regards,

Dr. Sultana N. Nahar

Tel: 1-614-292-1888, Fax: 1-614-292-2928, Email: nahar@astronomy.ohio-state.edu

Table 1: Partial list of physicists from 21 countries supporting the proposal (includes members of the International Society of Muslim Woman in Science)

```
Algeria:
```

```
Dr. Safia Alleg Algeria <safia_alleg@yahoo.fr>
Dr Qurida Ouamerali Algeria <ouameralio@hotmail.fr>
Bangladesh:
```

```
Dr A F M Yusuf Haider Bangladesh <yuhaider@univdhaka.edu>,
Dr Abdullah Shams Bin Tariq Bangladesh <asbtariq@ru.ac.bd>,
Dr Alfaz Uddin Bangladesh <uddinmda@yahoo.com>,
Dr Arun Kumar Basak Bangladesh <akbasak@gmail.com>,
Dr Aminul Islam Bangladesh <maislam2009@yahoo.com>,
Dr A Sattar Mollah Bangladesh <mollah_as@yahoo.com>,
Dr kamrul alam khan Bangladesh <kakhan01@yahoo.com>,
Dr Kazi Abul Firoz Bangladesh <kazifiroz2002@gmail.com>,
Dr K Siddique-e Rabbani Bangladesh <ksrabbani@gmail.com>,
Dr M Azharul Islam Bangladesh <azislam46@yahoo.com>,
Dr Mesbah Ahned Bangladesh <netproj2003@yahoo.com>,
Dr M Mushfiqur Rahman Bangladesh <chairman.physics@ru.ac.bd>,
Dr M Shafiqul Islam Bangladesh <shafiqphyru@yahoo.com>,
Dr Saleh Naqib Bangladesh <salehnaqib@yahoo.com>,
Dr Tahmina Ferdous Bangladesh <tahminaphysics@yahoo.com>
Mahmudul Hasan Bangladesh <mahmudul_hasan60@yahoo.com>
```

#### Egypt:

```
Abd A Ahmed Egypt <abdallah.ahmed86@gmail.com>
Abd E B Ahmed Egypt <bakryastro@yahoo.com>
Ahmed Abdelbar Egypt <ahmed_bar86@yahoo.com>
Ahmed Hafez Egypt <elmoghamer2020@yahoo.com>
Ahmed Ismail Egypt <Ahmed_Elazaka@yahoo.com>
Ahmed M Abdou Egypt <a.m.abdou2010@gmail.com>
Ahmed Samir Egypt <ahmedsamiratia@yahoo.com>
Alaa Abdelaziz Egypt <alaa.abdelaziz89@yahoo.com>,
Alshaymaa Ramadan Special Egypt <alshaymaaramadan@yahoo.com>,
Amany M Gouda Egypt <amanygooda@gmail.com>,
Asmaa M Selim Egypt <meooselem@yahoo.com>
Asmaa Mohamed Egypt <asmaa.mohamed@live.com>,
Asmaa M Selim Egypt <meooselim@yahoo.com>,
Doaa Taha Egypt <eg7822@wayne.edu>
Dr Abeer Esmat Aly Egypt <abeerresmat782000@yahoo.com>,
Dr Adel Abdel Sattar Egypt <adelsattar.2@yahoo.com>
Dr Ahmed Abuelmaaref Egypt <aahmh@hotmail.com>
Dr Amr El-Zant Egypt <aelzant@zewailcity.edu.eg>
Dr Alia Adam Egypt <alia_adam@hotmail.com>,
Dr Amal Ibrahim Refaie Egypt <amal1_ibrahim1@yahoo.com>,
Dr Asmaa Fahiem Mansour Egypt <fahiem51@yahoo.com>,
Dr Azza Farrag Egypt <azza_farrag@hotmail.com>
Dr Dalia Mohamed Osman Egypt <dalia.osman@guc.edu.eg>,
Dr Galila Mehena Egypt <galila.mehena@gmail.com>,
Dr Iftitan Azzouz Egypt <iftazzouz@niles.edu.eg>,
Dr Kamilia Sedeek Egypt <kamiliasedeek@yahoo.com>,
Dr Lobna Saleh Egypt <lobnasaleh2003@yahoo.com>,
Dr Lotfia El Nadi Egypt <mtprlotfia@gmail.com>,
Dr Mona Mohsen Egypt <mlmohsen@yahoo.com>,
Dr Samaa Imam El-Dek Egypt <bluesky_blueciel@hotmail.com>,
Dr Samaa Imam El-Dek Egypt <moala47@hotmail.com>,
Dr Samah Ahmed Egypt <samahmha@niles.edu.eg>,
Dr Soha Mohamed Egypt <mohamed_baseem@yahoo.com>,
Dr Hamdy A Elhamid Egypt <a href="mailto:habdelhamid@zewailcity.edu.eg">habdelhamid@zewailcity.edu.eg</a>
Dr Hisham Imam Egypt <hishamimam@niles.edu.eg>
Dr Inas AA Ssbbagh Egypt <inas_49@hotmail.com>
Dr kamal abd El-Kader Egypt <kamalmarei@yahoo.com>,
Dr kamal abd El-Kader Egypt <kamalmarei@hotmail.com>
Dr Kamel Gadellah Egypt <kamel.gadellah71@gmail.com>
Dr Khaled Edris Egypt <khedres@yahoo.com>
```

#### Egypt:

```
Dr Magda Elbahay Egypt <m.elbahay@hotmail.com>
Dr Magda El-Fass Egypt <magda_fass@yahoo.com>
Dr Mahmoud I Mohamed Egypt <gebara_1973@yahoo.com>
Dr Mamdouh Ahmed Egypt <mamdouh_2000_2000@yahoo.com>
Dr Mohamed A Ahmed Egypt <moala47@hotmail.com>
Dr Mohamed I Ibrahim Egypt <mibrah@gmail.com>,
Dr Mohamed El Okr Egypt <moh_elokr@yahoo.com>
Dr Mohamed M Saadeldin Egypt <msaadeldin@hotmail.com>,
Dr M M Desoky Egypt <mmdesoky@gmail.com>
Dr Mona Bakr Egypt <monabmohamed@nanotecheg.com>
Dr Nader R Moniem Egypt <naderramel2010@gmail.com>
Dr Olodia A Nassef Egypt <onasses@niles.edu.eg>
Dr Osman El Shazly Egypt <elshazlyo@gmail.com>
Dr Sana MA Maize Egypt <sanamaize1@yahoo.com>
Dr Shaaban Khalil Egypt <skhalil@zewailcity.edu.eg>
Dr Shadia Radwan Egypt <shadia.radwan@yahoo.com>
Dr Shahinaz Yousef Egypt <habibat_arrahman@yahoo.com>
Dr Shimaa S A Fatah Egypt <shimaa_slah@yahoo.com>
Dr Shimaa S El-Khiyami Egypt <shimaa_c3@yahoo.com>
Dr Yehya Gallab Egypt <yghallab@zewailcity.edu.eg>
Dr Yehya Ismail Egypt <yismail@zewailcity.edu.eg>
Dr Zenat H ElGohary Egypt <zhelgohary@yahoo.com>
Dr Yosr Gamal Egypt <gammally@yahoo.com>,
Eman A A Mwafy Egypt <ghoody2008@yahoo.com>
Eman M Youssef Egypt <eman_youssef22@hotmail.com>
Hamza H Abdelhamid Egypt < hamzawy66@yahoo.com>
Hamza Abou Hassanin Egypt <hamza.hassanin@alhotystanger.com>
Kamel Abd El-Aty Kamel Sawaby Egypt <phy_kamel@yahoo.com>
Khadiga ARH Mahmoud Egypt <khadiga@sci.cu.edu.eg>
Mohammed Aity Farg Egypt <moha_farzolo@yahoo.com>
Mohamed Beheary Egypt <mmbeheary2007@yahoo.com>
Mohamed E Mohamed Egypt <meud@zewailcity.edu.eg>
Mohamoud M Ismail Egypt <mme_10@yahoo.com>
Mohamed G Mohemed Egypt <m.gamal_physics@yahoo.com>
Mohamed Z Monsour Egypt <mohammadzaki11@yahoo.com>
Mahmoud Abed Egypt <mah3abed@gmail.com>
Nayira El Gammal Egypt <nayiraelgammal@yahoo.com>
Nermeen M Basha Egypt <nermeen_elsayed@sci.asu.edu.eg>,
Osama Ahmed Egypt <osamaahmed749@yahoo.com>
Raed M Elshazly Egypt <r.shazly@gmail.com>
Samar Toema Egypt <samar-toema@yahoo.com>
Shima A Sayd Egypt <shimaobakr@ymail.com>,
Shimaa S Abdelfatah Egypt <shimaa\_slah@yahoo.com>
Sherif Ezat Egypt <sherifezat27@yahoo.com>
Shima A Sayd Egypt <shimaobakr@gmail.com>
Walaa N A Ahmed Egypt <physicswalaa@yahoo.com>
Yasser S Nada Egypt <yassersci@hotmail.com>
Amal Salem Saleh Egypt <silivistor@yahoo.com>,
Asmaa G Mohamed Egypt <asmaagamal_physics@yahoo.com>,
Dr Afaf Abdel Geleel Egypt <Afaf_abunour@yahoo.com>,
Dr Afaf Abbas Sayed Egypt <Afafabas1@yahoo.com>,
Dr Afnan Mostafa Ahmed Egypt <afnanmostafa4@hotmail.com>,
Dr Amal Hassan M Azmy Egypt <Hassanazmy.amaal@yahoo.com>,
Dr Amani Abdel Hameed Egypt <Osman_aa-70@yahoo.com>,
Dr Batta Hamdy A Azeem Egypt <Bh.forgany@yahoo.com>,
Dr Dalia Demerdash Egypt <Dalia_dem@hotmail.com>,
Dr Elham Hassan Ahmed Egypt <Elhamhassan2006@yahoo.com>,
Dr Eglal AS Koura Egypt <eglalkoura@yahoo.com>,
Dr Eman M Elmancy Egypt <Elmancy.elmancy@yahoo.com>,
Dr Faika Ibrahim Kosa Egypt <faikakossa@hotmail.com>,
Dr Heba Salah Mohamed Egypt <hebasalah84@hotmail.com>,
Dr Hanaa Mostafa Hussein Egypt <hanaaa.bushadi@hotmail>,
Dr Hanan Mahmoud Ismail Egypt <Hanan_mmi@hotmail.com>,
Dr Hayam El Dawoody Ali Egypt <Hayam_saleh73@yahoo.com>,
Dr Imam AM Darwish Egypt <imandarwish73@yahoo.com>,
Dr Kareiman M Awad Egypt <KOKO7450@yahoo.com>,
```

#### Egypt:

Dr Madeeha AM Ashry Egypt <ma\_ashry @elitemail.com>, Dr Marwa Yousef Nofa Egypt <Marwanofal23@yahoo.com>, Dr Mervat M Labeeb Egypt <Mervat\_22@hotmail.com>, Dr Mona Ahmed Egypt <Monaf-123@hotmail.com>, Dr Mona Ali Mansour Egypt <monaamhelal@yahoo.com>, Dr Nadi Hussein Ismail Egypt <Nadia-hussein@hotmail.com>, Dr Naglaa Madkour Egypt <naglaamadkour@hotmail.com>, Dr Nadia MM Nasr Egpt <Nnasr6999@yahoo.com>, Dr Ola Serag Eldeen Egypt <ola\_serag\_el\_din@hotmail.com>, Dr Reem Osama A Kamel Egypt <Reemosama12@yahoo.com>, Dr Rehab Mosaad Egypt <ehabmosaad@yahoo.com>, Dr Rokaya Hussein Shalaby Egypt <rokaya2005@yahoo.com Dr Salwa Shawki Ibraheim Egypt <Salwashawky25@yahoo.com>, Dr Samiha Abd Eldayem Egypt <Samiha\_20@yahoo.com>, Dr Sanaa M Rafaat Egypt <sanaamrw@hotmail.com>, Dr Samira Abdel Megeid Egypt <samira.aa@hotmail>,>, Dr Shadi M Kadry Egypt <shadiakadry2011@yahoo.com>, Heba Abdel Raoof Egypt <Zize1@windowslive.com>, Iman Hisham Khashab Egypt <imanushca@yahoo.com> Nadia Nabiel Dawood Egypt <nadiauchea@yahoo.com>, Nora Rady Mohamed Egypt <Noura\_rady@yahoo.com>, Omnia AM Shehata Egypt <Monysok20010@yahoo.com>, Sanaa M Salem Badr Egypt <Sanaamostafa14@yahoo.com>, Shereen Hassan Badawy Egypt <Sherry\_cat15@yahoo.com>

#### India:

Alok Kulshrestha India <aeron.alok@gmail.com> Dr Abdul Qaiyum India <aqaiyum\_phys@rediffmail.com> Dr Alim Naqvi <alimhnaqvi@yahoo.com>, Dr Badruddin India <badr\_phys@yahoo.co.in> Dr Bhanu Das India <bpdas.iia@gmail.com> Dr Chiranjib Sur <csur@linuxmail.org>, Dr E Manikandan India <maniphysics@gmail.com> Dr K A Mohamed India <kumankattil@yahoo.co.in>, Dr Kasturi Baluja India <kl\_baluja@yahoo.com>, Dr Lakshmi Natarajan India <natarajanl@gmail.com> Dr Man Mohan India <mohaman@gmail.com>, Dr Malini Aggarwal India <asmalini@gmail.com>, Dr Mohammad Zafar India <hep\_amu@rediffmail.com> Dr Rajesh Srivastava India <rajsrfph@iitr.ernet.in>, Dr Sheikh Javid Ahmad India <jas\_theory@yahoo.com>,sheikh@utk.edu Dr Manzoor A Malik India <mmalik@kashmiruniversity.ac.in> Dr Gowher Bashir India <gowher67@yahoo.com> Dr Basharat Ahmad Want India <bawant@kashmiruniversity.ac.in> Dr M. Farooq Mir India <farooq\_mir@kashmiruniversity.ac.in> Dr Naseer Iqbal India <dni\_phtr@kashmiruniversity.ac.in> Dr Waseem Bari India <baritak@gmail.com> Dr Nissar Ahmad India <nis1231@gmail.com> Dr Sekh Golam Ali India <skgolamali@gmail.com> Dr Shakeel Ahmad India <ssimnani@gmail.com> Dr Sajad Masood India <smmasoodi@gmail.com> Dr Rahimullah Khan India <rahimullah@rediffmail.com> Dr RIYAZ KHAN India <aligriyaz@gmail.com> Dr Syed Rafi Indrabi India <rafiindrabi@gmail.com> Dr Tapankumar Nandi India <nanditapan@gmail.com> Dr Tauheed Ahmad India <ahmadtauheed@rediffmail.com> Dr Wasi Haider India <wasi42001@gmail.com> Dr Wasi Khan India <wasi.ap@amu.ac.in>, Anjum Naz India <anjum.brh@gmail.com>, Fousiya T S India <fousits@gmail.com>, Gagan <gagan@physics.iitm.ac.in>, Hala Noman India <hala.noman@gmail.com>, Juby George India <juby.george.e@gmail.com>, Ketan Verma India <ketancationpower@gmail.com>,

#### Table continues.

#### India:

K Haris India <kharisphy@gmail.com>, Mohammad Nizam India <mnizami132@gmail.com> Mohamed Sheik Siraj India <msheiksiraj@gmail.com> Rahla Naghma India <rahlanaghma@gmail.com>, Shehnila Athar India <shehnila.202@gmail.com>, swapnil varshney India <swapnilamu@gmail.com> Tanveer Ahmed Khan India <tkhan@hotmail.com> Zara Aftab India <aftabzara8@gmail.com> Muzaffar Qadir Lone India <lone.muszafar@gmail.com> Suraya Bashior India <suryabashir18@gmail.com> Firdous Ahmad Khan India <29firdous11@gmail.com> Waseem Raja India <waseemjnv@gmail.com> Shabir Ahmad India <shabphysics@gmail.com> Raja Nisar Ali India <rjnisar141@gmail.com> Waheed Ahmad Dar India <wad\_theory@yahoo.com> Mairajud-Din Shah India <fusis.mairaj@gmail.com> Zahoor Ahmad Bhat India <zahoorellaahi@gmail.com> Bilal Hamid Bhat India <a href="mailto:hamid.bilal767@gmail.com">hamid.bilal767@gmail.com</a> Bari Maqbool India <barispn1@gmail.com> Asif Iqbal Ahangar India <asif.iqbal31@gmail.com> Bilal Malik India <br/>
<br/>
dial200620@gmail.com> Mohammad Aslam India <aslamklr2003@gmail.com> Mohammad Jane Alam India <mjalamamu@gmail.com>

#### Iran:

Hoda Shariati Iran <hshariat@lsw.uni-heidelberg.de>
Sahar H Kassani Iran <sahar\_hosseinzadeh@physics.iust.ac.ir>
Dr Hassan Fathivavsari Iran <h.fathie@gmail.com>

#### Iraq

Dr Alaa Khalaf Physics-Iraq <alaa75uob@hotmail.com>,
Dr Akeel Hashem <akeel\\_hashem74@yahoo.com>

#### Jordan

Dr Alaa Azzam Jordan <alaa\_redstone@yahoo.com>
Dr Sherin A Saraireh Jordan <sh2002jo@yahoo.com>
Sadiqa JA Ahamad Jordan <s.ahamad@uaeu.ac.ae>

#### Malaysia:

Alya AB Azman Malaysia <alya@hawaii.edu>

#### Morocco:

Dr A Ben Abdellah Morocco <benabdellah.abdellatif@gmail.com>

#### Oman:

Dr Sheik M Rahman Oman <mujib@squ.edu.om>
Dr Ali Awadh Yousif Oman <ayousif@squ.edu.om>
Dr Mehmet Koca Oman <kocam@squ.edu.om>
Dr Ram N. Singh Oman <ram@squ.edu.om>
Dr Abraham George Oman <akgeorge@squ.edu.om>
Dr Ahmed Al-Rawas Oman <arawas@squ.edu.om>
Dr Abbasher Gismelseed Oman <abbasher@squ.edu.om>
Dr Azzouz Sellai Oman <asellai@squ.edu.om>
Dr Carlo Carboni Oman <carlo@squ.edu.om>
Dr Cengiz Ercil Oman <cercil@squ.edu.om>
Dr Hisham Widatallah Oman <hishammw@squ.edu.om>
Dr Imaddin Al-Omari Oman <ialomari@squ.edu.om>
Dr Issam Ali Oman <issam@squ.edu.om>
Dr Mohamed Elzain Oman <elzain@squ.edu.om>
Dr Sayed Osman Oman <osm@squ.edu.om>

Dr Sayyadul Arafin Oman <sayfin@squ.edu.om>

#### Table continues.

#### Oman:

Dr Salim Al Harthy Oman <Salim1@squ.edu.om>
Dr Ravi S Babu Oman <br/>
Dr Faramarz Gard Oman <gard@squ.edu.om>
Dr Muataz Al-Barwani Oman <muataz@squ.edu.om>
Dr Mudhahir Al Ajmi Oman <muataz@squ.edu.om>
Dr Mudhahir Al Ajmi Oman <mudhahir@squ.edu.om>
Dr Nidhal Sulaiman Oman <nidhal@squ.edu.om>
Dr Nazife Koca Oman <nazife@squ.edu.om>
Dr Raheel Shah Oman <raheelsh@squ.edu.om>
Dr Saleh Al-Shidhani Oman <Shidhani7@squ.edu.om>
Dr Tariq M Ghulam Oman <tariqm@squ.edu.om>
Fadhila Al Mabsali Oman <fadhilaa@squ.edu.om>
Fatma Al Mamari Oman <fatmaa@squ.edu.om>
Fatma Al Mamari Oman <fatmaa@squ.edu.om>
Rahma Al Harthy Oman <rahmah@squ.edu.om>
Hajir Al-Hamrashdi Oman <hair@squ.edu.om>

#### Pakistan:

Dr Aslam Baig Pakistan <aslam.baig@ncp.edu.pk>
Dr Fazal-e-Alam Pakistan <fazalealam@hotmail.com>,
Dr Kashif Sabeeh Pakistan <ksabeeh@qau.edu.pk>,
Dr MUNAWAR IQBAL Pakistan <muniqbal@yahoo.com>,
Dr Muhammad Rafique Pakistan <shahidrafiq@uet.edu.pk>
Dr Raheela Ali Pakistan <raheelali@qau.edu.pk>,
Dr Sabieh Anwar Pakistan <sabieh@khwarizmi.org>,
Dr Shazia Bashir Pakistan <shaziabashir@gcu.edu.pk>
Haroon Asghar Pakistan <haroonasghar33@gmail.com>
Dr M Zakaullah Pakistan <mzakaullah@qau.edu.pk>
Dr Muhammad Rafique Pakistan <shahidrafiq@uet.edu.pk>

#### Palestine:

Marwa Al Rajoob Physics-UAE-Palestine <200834945@uaeu.ac.ac>,

#### Russia:

Dr Kholmurad Khasanov Russia <kholkh@bk.ru>
Dr Maria Bergemann Tatarstan <mbergema@MPA-Garching.MPG.DE>

#### Saudi Arabia:

Dr Abeer Al-Modlej Saudi Arabia <amodlej@KSU.EDU.SA>,
Dr Bedoor Alkurtass Saudi Arabia <bkurtass@KSU.EDU.SA>,
Dr Fatma S Bahabri Saudi Arabia <f\_s\_bahabri@hotmail.com>,
Dr Jawaher Alotaibi Saudi Arabia <jalotaibi@KSU.EDU.SA>,
Dr Laila S Babsail Saudi Arabia <lababsail@ksu.edu.sa>,
Dr Maha Khayyat Saudi Arabia <mooklo@hotmail.com>,
Dr Maha Torjman Saudi Arabia <mooklo@hotmail.com>,
Dr Nourah Al-enazi Saudi Arabia <noura\_phys@hotmail.com>,
Dr Reem Al-Saigh Saudi Arabia <rsaigh@KSU.EDU.SA>,
Dr Reem M Al-Tuwirqi Saudi Arabia <raltuwirqi@kau.edu.sa>,
Dr Salwa Alsaleh Saudi Arabia <salwams@KSU.EDU.SA>,
Dr Sausan Sawaf Saudi Arabia <sausan@KSU.EDU.SA>,
Dr Zain H. Yamani Saudi Arabia <zhyamani@kfupm.edu.sa>

#### Sudan:

Dr Mohamed Osman Awadall Sudan <msman@yahoo.com>
Dr Mohammed Khair Sudan <msman41@yahoo.com>
Dr Faiz Abbas Sudan
Dr Mohammad Osman Awadell Sudan <msman41@yahoo.com>
Dr Wafa Salih Sudan <wafasalih2003@yahoo.com>
Hassan Abdalla Sudan <hassanahh@gmail.com>
Hashim Hassan Abdelgadir Elfaki Sudan <hashfaki@yahoo.com>

# Syria: Baha Alhomsi Syria <bahaa7alhomsi@gmail.com> Dr Maha Torjman Syria <maha\_tjman@hotmail.com> Tunisia: Dr. Amel Omran Turkey: Dr Betul Atalay Turkey <betulatalay@gmail.com>, Dr Gultekin Celik Turkey <gcelik@selcuk.edu.tr>, Dr Ipek Kanat Ozturk Turkey <ipek.kanat@gmail.com>, Dr Murat Kurudirek Turkey <mkurudirek@gmail.com>, Dr Murat Yildiz Turkey <muraty70@gmail.com>, Dr Osman Demircan Turkey <demircan@comu.edu.tr>, Dr Sule Ates Turkey <suleates@selcuk.edu.tr>, Dr Zikri Altun Turkey <zikalt@superonline.com>, Dr Zikri Altun Turkey <zikalt@marmara.edu.tr>, Ece K Eser Astronomy-Turkey <ecekilerci@gmail.com>, Vahide S Kurudirek Physics-Turkey <vahidesinem@gmail.com> Yasin Gokce Turkey <ygokce58@gmail.com> Dr Mustafa Kumru Turkey <mkumry@fatih.edu.tr>, Tayyibe Bardakai Turkey <tayyibe.b@gmail.com> United Arab Emirates: Dr MAAMAR BENKRAOUDA UAE <maamar@uaeu.ac.ae>, Dr Mohamed A Abdel-Raouf UAE <assad@uaeu.ac.ae> Dr Ayesha Salem S AlDhaheri UAE <ayesha\\_aldhaheri@uaeu.ac.ae>, Dr Ali Dualeh Abdulla UAE <ali.abdulla@uaeu.ac.ae> Dr Ilias M. Fernini UAE <ifernini@uaeu.ac.ae> Dr NACIR M TIT UAE <ntit@uaeu.ac.ae>, Dr Noura Al Khaili UAE <200813047@uaeu.ac.ac>, Dr Hasan M. Al-Naboodah UAE <Naboodah@uaeu.ac.ae> Abdullah Talha Yemen <abdullah\_talha2004@yahoo.com> Dr Abdullah Ameen Saad Hassan Yemen <abdullah\_talha2004@yahoo.com>, Dr Fahem Bajash Yemen <fahem\_bajash@yahoo.com>, Mr Abdulnasser Alfageer Yemen <nasser\_alfageer@yahoo.com>, Mahmood Alkathy Yemen <mo\_alkathy@yahoo.com> Bahrain: Dr Mohamed Bououdina Bahrain <mboudina@gmail.com>. adnan sayed Bahrain <dnn\_sayed@yahoo.com>, Ahmed Alsaie Bahrain <ahmed.alsaie@gmail.com>, Akil Dakhil Bahrain <adakhil@uob.edu.bh>, Ali Malallah Bahrain <mujta@hotmail.com>, AM Alshino Bahrain <am\_alshino@hotmail.com>, Basma Al-Najjar Bahrain <basma-al-najar@hotmail.com>, Dr Habib Ashoor Bahrain <a href="habib.ashoor710gmail.com">habib.ashoor710gmail.com</a>, Dr Lama Sakhnini Bahrain <l\_sakhnini@yahoo.com>, Dr SAFWAN RUSHDI AREKAT Bahrain <sarekat@uob.edu.bh>, Dr Mohamed Bahrain <mohamedalothman@gmail.com>, Dr Mohamed Elhilo Bahrain <melhilo@gmail.com>, Khalil Jasim Bahrain <khalilej@gmail.com>, Mahmood Nasser Bahrain <rasroman@gmail.com>, Mohamed Yousif Bahrain <myhussein81@gmail.com>, Mohammed Bahrain <mkmerza@gmail.com>, Saleh Al-Alawi Bahrain <salehalalawi1986@gmail.com>,

Walid Azzam Bahrain <wjazzam@gmail.com>, Attiyat Al\_owfi Bahrain <shoog\_aa@hotmail.com>,

Layla S Naser Bahrain <allaalayla@gmail.com>,

Fadheela Bahrain <fad-13@hotmail.com>,

Table continues.

#### Bahrain:

Najla Mirza Bahrain <n.m.alqassas@gmail.com>, Nezar Al-Noaimi Bahrain <nezar25@gmail.com>, Siddiqa Saeed Bahrain <sshah91@hotmail.com>, Zahra Abdulla Bahrain <z87a@windowslive.com>

### Ukraine:

Valeriy Lisovskiy <lisovskiy@yahoo.com> Stanislav Dudin <stanislav\_dudin@rambler.ru>, Vladimir Yegorenkov <yegorenkov@yahoo.com>