

# AKPA Newsletter

재미 한인 물리학자 협회

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The current and past AKPA news can be found in the AKPA website: <http://www.akpa.org/>.

## 1. It is time to revive AKPA!

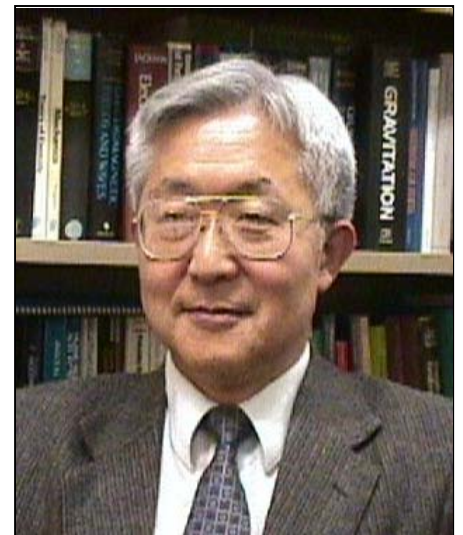
“The Lord is subtle...” How insightful Einstein was! After one hundred years of scientific revolution from Einstein’s miracle year of 1905, we are still confounded by the true nature of the basic building blocks of material (particle versus string), the very dimensionality of spacetime, dark matter, and dark energy... With the advancement of quantum optics and nano-technology, molecular biology has become a physics laboratory. We certainly live in a most exciting time!

I feel honored to become the 26<sup>th</sup> president of AKPA in this World Year of Physics, and I find plenty of work to do. My term is May 1, 2005 through April 30, 2007. AKPA was launched in 1979 with great enthusiasm (67 paying members) under the leadership of the first president, Dr. Tong Nyung Lee, and it flourished under many able presidents. Looking through the record, however, I find that AKPA’s activities have generally been declining after reaching a peak in 1994-96 in both membership (83 paying members) and financial activities (total annual income of \$5,635). Over the last two years, the paying membership and total income (averaged over two years) have dropped to 5.5 and \$528!

Clearly, it is time to rebuild AKPA. I have already been discussing it extensively with many loyal supporters of AKPA. Several tasks have emerged. First, we should launch a membership drive right away. I feel that we should set a goal of surpassing 100 paying members. Second, we should publicize AKPA through more frequent and regular newsletters. Third, AKPA should become a more useful and relevant organization to members and non-members alike. To satisfy this last goal, AKPA should facilitate the exchange of information such as job announcements, scientific achievements of the members, and news items from Korea and elsewhere.

I am very happy to announce the new officers and committee members, as listed below, who are very able and enthusiastic. I am fortunate to be assisted by Vice President, Dr. Taeil Bai, a loyal supporter who has many ideas for AKPA. Professor Eun-Suk Seo will be our General and Treasury Secretary. She will take the lead in raising funds for AKPA. Professor Moo Young Han has accepted the position of Publicity and Editorial Secretary. His experience with KASTN and IEKAS and his vast information network will be invaluable in reviving our newsletter activity. Dr. Joon Yoll Choe will be our E-link Secretary and Web Manager. He and his committee will perform the painstaking work of expanding AKPA’s email list and upgrading its homepage. Dr. Kyungsik Kang, a loyal member of AKPA, will chair the OYRA committee.

I have many things to communicate to you in the near future, including a suggested amendment of AKPA’s charter and an outreach program as part of the World Year of Physics activity. At this time, I would like to



request each one of you to send an up-to-date email list of the Korean physicists in your institution to Dr. Joon Yoll Choe at [joon.choe@nrl.navy.mil](mailto:joon.choe@nrl.navy.mil) and send your membership fee (\$25), along with a donation, to Professor Eun-Suk Seo at the Institute for Physical Science and Technology, University of Maryland, College Park, MD 20742. Your generous donation will enable AKPA to accomplish its goals. Please also send relevant news items to Professor Moo Young Han at [myhan@phy.duke.edu](mailto:myhan@phy.duke.edu), with a copy to me at [hpaik@umd.edu](mailto:hpaik@umd.edu).

Cheers,  
Ho Jung Paik  
President of AKPA

## 2. List of the 26th AKPA officers and committee members

### President

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### General and Treasury Secretary

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### E-link Secretary, Web Manager

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### OYRA Committee

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Prof. Yoonseok Lee (U. Florida) (07)  
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### Election Committee

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Dr. Sung Kwon Lyo (Sandia National Labs) (09)  
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### 3. Report on KPS/AKPA Joint Meeting for World Year of Physics

Kyungsik Kang, Brown University, and Ho Jung Paik, University of Maryland

In 1905, Einstein published three important papers, which have profoundly influenced our understanding of the universe. He introduced utterly revolutionary ideas on the nature of light and the concept of space, time, matter and energy. He thus opened the way to most of the 20<sup>th</sup>-century development of physics, which has contributed so much to the advancement of science and technology. In celebration of the 100<sup>th</sup> anniversary of those great scientific discoveries, UNESCO and UN General Assembly declared 2005 as the World Year of Physics (WYP).

In celebration of the WYP, the Association of Korean Physicists in America (AKPA) and the Korean Physical Society (KPS) organized and successfully held a joint physics conference on Ewha University campus in Seoul on April 21-23, 2005. The US Organizing Committee members were Kyungsik Kang (Brown University, Co-Chair), Ho Jung Paik (University of Maryland), Young Wook Kim (Lehigh University), Gey-Hong Gweon (Lawrence Berkeley Lab), and Sung Mok Lee (KUSCO).

#### April 21, 2005 (Thursday)

There was a general plenary session in the morning. After the introductory remarks given by the KPS President, Chae Ok Kim, and the AKPA President, Quiesup Kim, Ho Jung Paik (U. Maryland) led off the scientific discussions with a brief review of the impact of Einstein's 1905 discoveries and a talk on his current experimental search for extra dimensions. This was followed by two talks on physics education research by Koo Chul Lee (Seoul National U.) and Lillian C. McDermott (U. Washington).

In the afternoon, the sessions were split into Particle/Astrophysics and Condensed Matter Physics. The speakers in the first afternoon session were: H. M. Fried (Brown U.), Cheung-Ryong Ji (North Carolina State U.), Soo-Jong Rey (Seoul National U.), Dale Choi (Goddard Space Flight Center), and Yanglai Cho (Argonne National Lab). They covered diverse topics such as astrophysical impact of tachyons, light-front dynamics in particle physics, an introduction of the string theory, binary black holes as gravitational wave sources, and the state-of-the-art particle accelerators using superconducting cavities.

The speakers for the second afternoon session were: Yong Wook Kim (Lehigh U.), Sung Kwon Lyo (Sandia National Lab), Quiesup Kim (Jet Propulsion Lab), Phillip Kim (Columbia U.), Taekjip Ha (U. Illinois), Kyu Chul Lee (Postech), and Seung Hun Hong (Seoul National U.). They covered various topics ranging from low-temperature and semiconductor physics to fabrication and material properties of nano-scale devices.

#### April 22, 23, 2005 (Friday and Saturday)

The Einstein symposium of April 21 was followed by two days of the KPS/AKPA joint meeting for all divisions. The US participants also attended these meetings, some giving talks.

Maintaining a technological leading edge would be essential for Korea to survive international competition and grow into an economic power of the 21<sup>st</sup> century. The KPS/AKPA joint meeting set a small milestone in improving science education and research in Korea. The meeting brought together leading Korean physicists in the United States and Korea, helped promote closer scientific collaboration between them, and raised awareness of the importance of basic research and science education among the public and policy makers in Korea. The KPS and AKPA officers have agreed to work more closely in the future to promote science education and research in Korea and in the Korean communities in the United States.

Due to the timing of the conference, which took place right in the middle of the spring semester, participation of physicists from the United States was not as great as expected. About a dozen physicists from US participated in the joint meeting, and the travel grant from KUSCO was used to cover the travel expenses of 8 of these scientists.

#### 4. Job announcement from KIAS

KOREA INSTITUTE FOR ADVANCED STUDY (KIAS)

##### **Research Fellow and Visiting Scholar Positions in Theoretical Physics**

The School of Physics at the Korea Institute for Advanced Study (KIAS) invites applications for several research fellow positions and visiting scholar positions in theoretical physics.

Applicants for the research fellow position are expected to have demonstrated exceptional research potential in the fields of astrophysics and cosmology, particle physics and phenomenology, quantum field theory and string theory, or statistical physics and condensed matter theory. The starting date of the appointment is negotiable, and can be as early as the autumn of 2005. The initial appointment will be for two years with a possibility of renewal for up to two more years, depending on the research performance of the individual and also on the needs of the program at KIAS. The annual salary ranges from \$20,000 US to \$30,000 US and some research funds are available.

Those interested are encouraged to contact individual faculty members. Visit our website <http://www.kias.re.kr> to learn about our faculty members and their research interests. Applicants should send a cover letter specifying the research area, a curriculum vita with a list of publications, and a summary of research plan, and arrange three recommendation letters. E-mail applications are strongly encouraged. You may direct the application to Ms. Yoon Hee Kim ([heureux@kias.re.kr](mailto:heureux@kias.re.kr)) or to one of the faculty members. The surface mail should be directed to

Ms. Yoon Hee Kim  
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The visiting scholar program is mainly for established scientists for short-term and long-term visits including sabbatical leaves. The successful candidates are expected to collaborate with research groups at KIAS. Collaborations with other visiting scholars or researchers in other institutions in Korea are also encouraged. Those interested should contact via e-mail one of the faculty members in the related field as a potential host. The appointment requires a curriculum vita with a list of publications and a summary of research plan.