Association of Korean Physicists in America

AKPA Newsletter

재미 한인 물리학자 협회

Volume 26, Number 2 July, 2005

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

1. Letter from the President: We Need Your Support to Revamp AKPA!

AKPA is fully up and functioning! We are working hard to expand our email list and update our homepage. With Professor Han as Editor-in-Chief, our newsletter is becoming a world-class journal. We are organizing public lectures in major cities as part of the World Year of Physics outreach progam. If successful, we would like to turn this into an annual public event of AKPA. This lecture series could encourage bright young Koreans to go into basic science. It would also be an occasion for the local chapters of AKPA to meet. We are exploring ways of upgrading the OYRA (Outstanding Young Researchers Award) into a more prestigious award, including a substantial increase in its monetary reward.

There are several areas where we need support from our members and the readers of this newsletter. First, please help us expand our email directory. If you are associated with an educational or research institution in US or Canada, please send us (to st.chun@nrl.navy.mil) a list of Korean physicists in your institution with their names, positions, phone numbers, and email addresses. If you are with an institution in Korea or elsewhere, please send us (to choi@godel.gsfc.nasa.gov) the names and email addresses of the department head, with whom we can communicate for job announcements and news items, and others who wish to receive our newsletter. Any of you can submit job advertisements and news items to myhan@phy.duke.edu and feel free to circulate our newsletter to your friends.

Second, we need an action by the members to amend AKPA's Bylaws. AKPA has various standing committees: the Publicity and Editorial, E-link and Web Management, OYRA, and Election Committees. According to the present Bylaws, each committee member is to be appointed for *three* years while the terms of the President and the Secretaries have been changed to two years. It is desirable to expand the committee members' term to *four* years with staggered start dates, which would fully cover the terms of two presidents. We would like to propose an amendment of our Bylaws to that effect. Since only the members who paid their dues can vote, we will wait until after the due date for the membership fee, October 31, to conduct the vote.

Third, we would like to invite *all of you* to become members of AKPA. AKPA has three kinds of membership: (1) **Regular Member:** ethnic Korean physicists (with a B.S. degree and beyond in physics or equivalent) residing in North America, (2) **Associate Member:** ethnic Korean students in physics or physics related area in the colleges and graduate schools in North America, (3) **Corporate/Honorary Member:** individual/organization who/that contributed ($100 or more) to AKPA or contributed to the progress and dissemination of physics. As you see, any of you can become a member of AKPA by making a *donation* to AKPA, even if you do not reside in North America or are not even a physicist! Your generous contribution will permit AKPA to carry out many of its envisioned activities.

Please go to www.akpa.org, register as a member, and send your membership fee and donation to our Treasurer, Professor Eun-Suk Seo at the Institute for Physical Science and Technology, University of Maryland, College Park, MD 20742. The annual membership fee for regular members is $25. If you would rather pay for two years, you can send $50, with a note. If you are a student, do not worry about the fee because we are in the process of eliminating the $5 fee for the associate membership.

Cheers,
Ho Jung Paik, President

2. Social Awareness and Physicists

Dr. Taeil Bai
President-elect and Vice President of AKPA
Hansen Experimental Physics Laboratory, Stanford University

Physicists mostly study unanimated material objects. Therefore, they are more comfortable with dealing with material objects and tools than dealing with people. Many physicists, as a consequence, lack "people skills" and are not interested in social issues.

However, there are three main reasons why physicists should be more social. First, physics research is a kind of communal activity. No physicists can work in isolation. As Isaac Newton said, "We are standing on the shoulders of giants." These giants include contemporary colleagues as well as historical figures. Therefore, without a community of physicists, an isolated physicist cannot function.

Second, physics research is mostly funded by tax. Therefore, we should pay attention to taxpayers, explaining to them how exciting our researches are. NASA and NSF are encouraging scientists' outreach.

Third, the gravity of social impacts of physics research demands our social awareness. Many physicists living in Germany during the 1930s and 1940s tolerated Nazism, and some of them collaborated with it. This was partly because they were not interested in or were ignorant of what was happening in the society, concentrating on research in the physical world.

In spite of this, we have good examples of top-ranked physical scientists who were active in social issues. Albert Einstein was involved with Zionism, advocated the world government, and wrote a letter to President

Roosevelt proposing the development of nuclear bombs, although he later regretted writing the letter. Linus Pauling protested the production of hydrogen bombs and advocated the prevention of the spread of nuclear weapons, for which he received a Nobel Peace Prize, in addition to receiving a Nobel Prize in chemistry. Andrei Sakharov advocated human rights in the Soviet Union, enduring persecution by the government.

With this grandiose introduction, I urge Korean physicists in America to participate in AKPA. By nature, AKPA can aim for limited objectives. It is not a professional society where one can present professional research results. Rather, it aims to facilitate networking among Korean physicists in America and networking between this group and physicists in Korea. For this purpose, AKPA plans to publish and distribute newsletters more vigorously, remedying recent years' inactivity in this regard. Furthering the careers of young colleagues is an important goal of AKPA. For this, it plans to revamp OYRA (Outstanding Young Researchers Award), by publicizing it to have more applicants and increasing its prize money. While serving as a member of the OYRA committee, I learned that many talented young Korean physicists are active in America. AKPA plans to distribute job announcements. As a part of outreach efforts of the American scientific community at large, AKPA also plans to have public lectures for the Korean-American communities in major metropolitan areas, timing with the International Year of Physics.

The AKPA membership fee is mere $25 per year. Many Koreans are willing to pay for the meals after enjoying lunch or dinner with friends. The membership fee is not more than buying a dinner for a friend. Many Americans pay membership fees to various NGOs such as the Sierra Nevada Club for the causes they believe in, while there are not much tangible direct benefits to them. Activities of such NGOs make democracy function well. Paying the AKPA membership fee is the least civic duty of physicists who happen to be Korean. Additionally, senior physicists who are well established in their careers should devote some time for AKPA by serving as members of its committees. The viability of AKPA will commensurate with your participation.

Dues and Contributions Meter

As of June 30, 2005

Four members

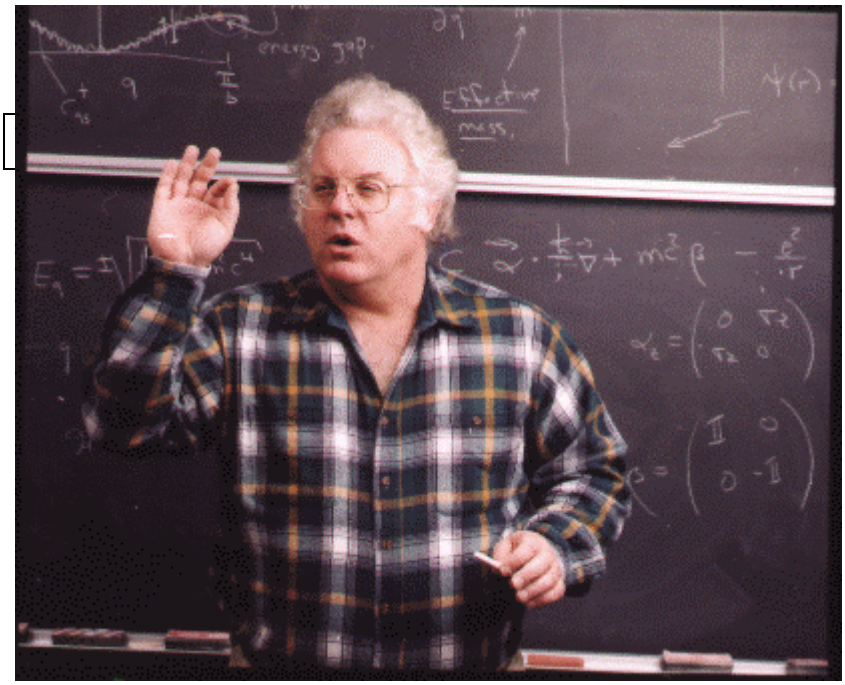
Total of the four: $2,400.00

Maximum per member: $1,025

A complete listing will be published after October 31, 2005.

3. The Middle Kingdom

Column by Robert B. Laughlin
Korea Advanced Institute for Science and Technology
[Originally published in the Chosun Ilbo, April 23, 2005]



Professor Robert B. Laughlin, who is serving as the President of KAIST (Korea Advanced Institute of Science and Technology) on leave from Stanford University, has given permission to the AKPA Newsletters to publish any of his columns that he regularly contributes to the Chosun Ilbo. From time to time, Professor Laughlin will contribute articles specifically for the AKPA Newsletters to communicate with Korean-American physicists in particular, and Korean-American scientists and engineers in general.

Many of us who have raised families know how true it is that birth order affects a child's personality. A great deal has been written about this effect. It is often argued that the cause is "economic," in the sense that children blocked from parental attention by "business tactics" of the older siblings tend to develop alternate strategies for getting what they need. These strategies then become incorporated into their personalities. The first child is typically a "take charge" individual, an executive who gets things done directly, right and on time. The youngest child tends to be charming and manipulative, a person who immensely enjoys getting his or her own way, and usually succeeds. But the truly interesting case is the middle child, a person who feels overlooked and forgotten by parents more interested in the "flagship" first born and the darling baby. The middle child often looks outside the family for meaning---a risk taker attracted to unconventional clothes, unconventional activities and unconventional ideas. Middle children tend to handle disappointments better than their siblings, to be empathetic on account of their family circumstances, and to be good negotiators. Famous examples of middle children are Jay Leno and Donald Trump.

A few weeks ago I was at a party in San Francisco talking to an ex-student of mine who manages a $500 million hedge fund. The subject eventually turned to Asian investments. When the right moment came, I asked him what he thought of Korea in comparison to China and Japan. He pondered for a moment and then replied that Korea seemed to him to be a country without a business plan. I was

shocked by this remark, since I knew how untrue it was, but I continued to listen carefully. He said that China was clearly the place where growth in low-end manufacturing would occur, since China had virtually unlimited sources of cheap, high-quality labor, and that Japan seemed to be leading at high-end technology. He said his company had been looking for good investments in Korea for the past year and had found very few.

Whether this conversation was a fluke or representative of global investor thinking, it strikes terror in the hearts of most Koreans, whose worst nightmare is being squeezed out of prosperity by their two powerful neighbors.

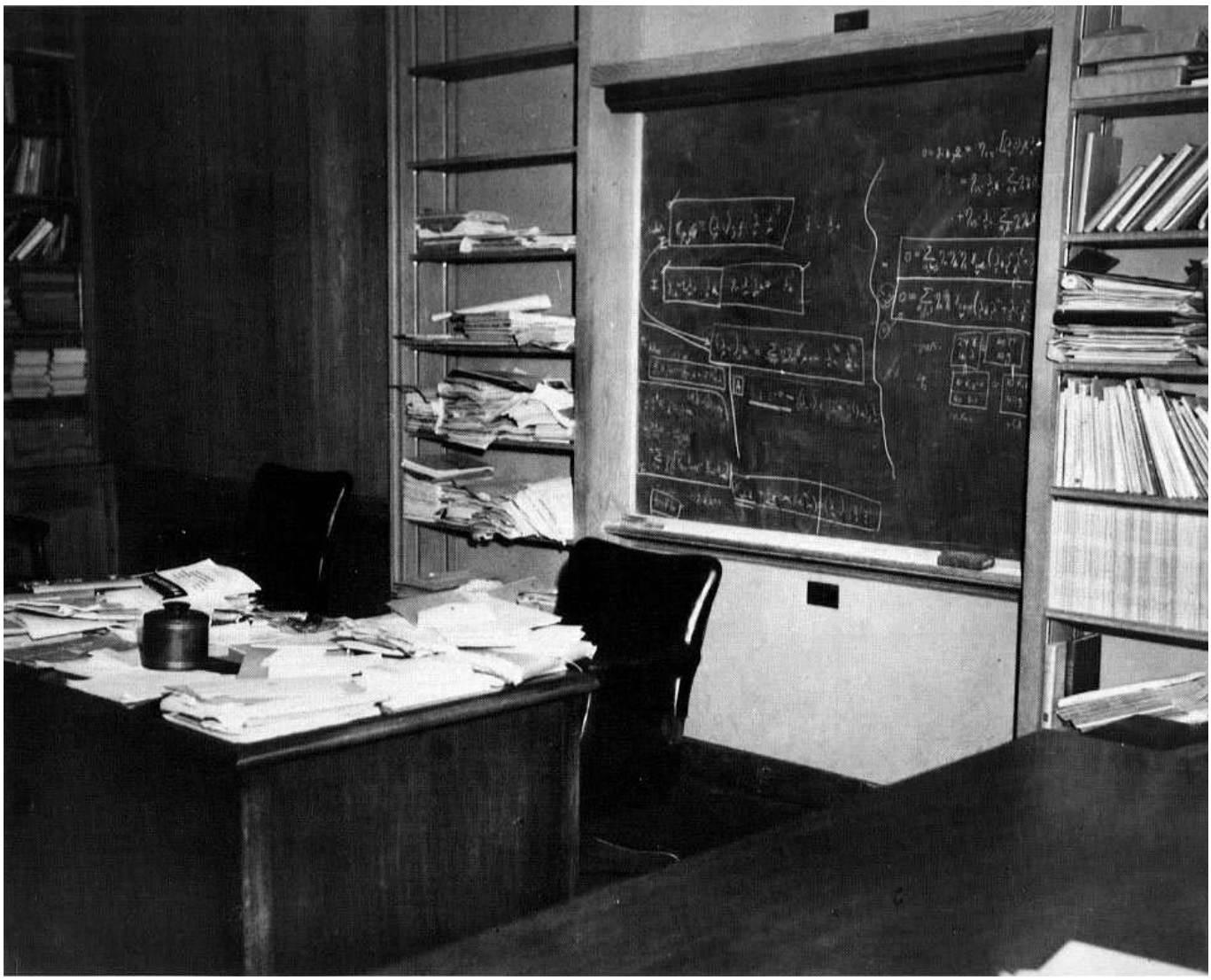
However, while these fears are justified, my best guess is that they will turn out in the end to be irrelevant, like those of a middle child. The low-end and high-end markets may well be foreclosed to Koreans in the long run, for no amount of wishing or hard work can reverse the laws of economics, but the point is that there are other markets not yet discovered that are just as good. Middle children have been finding these markets since time began, and they seem to have done all right.

I actually suspect Korea is destined to become a kind of Middle Kingdom of northeast Asia, an international version of the middle child in a nuclear family. The reason is not any special cultural or genetic trait but simply that accidents of birth have taken away all options except innovation. For a middle child, the way forward is preordained by human nature and involves responding to blocked options in unconventional ways---such as bungee jumping without asking your parents or crossing the ocean in three little boats. For Korea I think the same is true, although it may be difficult for most Koreans to see at the moment because the idea of embracing risk clashes so strongly with their predilection for stability and safety. However, they would do well to remember that a middle child is never safe. Also, even the most venerable civilizations have had moments of trouble and come out all right. After a brief time of hopeless political chaos, for example, ancient Egypt rose up to form the first Middle Kingdom. History records that it blossomed into a golden age of art, literature, commerce and prosperity.

Ask not what AKPA can do for you. Ask what you can do for AKPA.

[paraphrasing of the famous quote of John Fitzgerald Kennedy]

4. Einstein's Office



Einstein's last blackboard, Institute for Advance Study, 1955

"I think that a particle must have a separate reality independent of the measurements. That is, an electron has spin, location and so forth even when it is not being measured. I like to think that the moon is there even if I am not looking at it." ---- Albert Einstein