UH Physics Professors Attend Nobel Prize Ceremony & Banquet

UH physics professors Stephen Olsen and Sandip Pakvasa attended this year's Nobel Prize Ceremony and Banquet on December 10th in Stockholm this year as special guests of physics prize co-recipient Makoto Kobayashi. Kobayashi was awarded the prize together with Toshihide Maskawa for their pioneering work in 1973 that showed how the subtle differences between matter and antimatter that had been observed ten years earlier (and were the subject of the 1980 Nobel Physics Prize) could be incorporated into the theory of sub-atomic particles.

The Kobayashi-Maskawa paper went unnoticed until a 1976 paper by Pakvasa and then visiting UH professor Hirotaka Sugawara showed how the Kobayashi Maskawa idea could account for the experimental observations at that time. Their paper brought attention to the Kobayashi-Maskawa paper and stimulated a considerable amount of interest in the world's theoretical physics community, and this subsequently led to the incorporation of the Kobayashi-Maskawa idea into the framework of the commonly accepted theory for sub-atomic processes. In recognition of the importance of this paper, Kobayashi asked Pakvasa & Sugawara to be his guests at the Nobel festivities.

However, in science, theories are not fully accepted ---certainly not at the Nobel Prize level of recognition—until they have been experimentally validated. In this case it took nearly thirty years before experimental physicists had developed equipment that were sensitive enough to make definitive tests of the Kobayashi-Maskawa theory. In July 2001, experiments at the National High Energy Physics Laboratory in Japan and the Stanford Linear Accelerator Center in California confirmed the validity of the K-M idea. UH physics department members were deeply involved in the Japan-based effort –the so-called Belle experiment—and Olsen, as a co-leader of the experiment, was chosen to make the first public presentation of the team's experimental results confirming the theory at an international meeting in Rome in July 2001. Kobayashi invited Olsen to Stockholm as a representative of the Belle experimental team. Other members of the UH Belle team are faculty members Thomas Browder, Michael Jones, Michael Peters and Gary Varner, post-doctoral fellows Jin Li and Herbert Hoedimoser and graduate students Kurtis Nishimura, Jamal Rorie and Himansu Sahoo.

In addition to the Nobel Ceremony and Banquet (with the King and Queen of Sweden in attendance) the week-long festivities included public lectures by each of the Nobel Laureates, numerous receptions and an elaborate all-night party hosted by the students of the Royal Institute of Technology.

Hirotaka Sugawara (L), Stephen Olsen and Sandip Pakvasa (R) with Nobel Laureate Makoto Kobayashi at a reception hosted by the Japanese Embassy the day before the Nobel ceremony.

Olsen and Pakvasa model their tuxedos, required dress for the Nobel Ceremony & Banquet, and the ensuing all-night party.