

AKPA Symposium on Special Topics in Physics

(Emphasis on US-Korea Collaboration on KoRIA)



**A BIG Thank you for
coming all the way to
Texas!!**



Who are our supporters?

- UTA
 - Is a home of 33,000 students
 - Leading research institution in the metroplex area and in the state of Texas
 - Physics department is 87th in total research expenditures
 - Now Tier 2 but is striving to become Tier 1 university
- AKPA stands for Association of Korean Physicists in Americas
 - See Dr. Seo's talk later for details
 - Offering a High School Physics Contest this year
- KSEA stands for Korean-American Scientists and Engineers Association
 - Has over 3000 members of various science and engineering disciplines
 - Has been offering Nationwide Math Contest for 4 – 11th students
- Help will available for AKPA-KSEA membership registration during the breaks



What is KoRIA?

- Stands for Korea Rare Isotope Accelerator
 - A \$400M accelerator that makes rare nuclei that do not exist in nature
 - To understand the nuclear synthesis and the mechanism stars are formed
 - The center piece of a larger Korean government project, called the International Science and Business Belt (ISBB)
 - With a \$5billion investment in the basic sciences
- This is a great opportunity for US and Korea to collaborate to become even closer partners in basic sciences
 - KoRIA could become something like CERN 30 yrs down the road

08:30 - 09:00	Registration, coffee and breakfast
09:00 - 10:30	Session 1: Welcome and Introductions Convener: Prof. Jae Yu (University of Texas at Arlington (US))
09:00	Welcome and logistics 10' Speaker: Prof. Jae Yu (University of Texas at Arlington (US))
09:10	Welcome Message from UTA Associate VP for Research and Dean of College of Science 20' Speakers: Prof. Pamela Jansma (UT Arlington), Prof. Krishnan Rajeshwar (University of Texas at Arlington)
09:30	Introduction to AKPA and KSEA 30' Speaker: Eun Suk Seo (University of Maryland (US))
10:00	Research Activities of UTA Physics Department 30' Speaker: Prof. Alexander Weiss (UT Arlington)
10:30 - 11:00	Coffee Break
11:00 - 12:30	Session 2: Nuclear Physics in the US and In Korea Convener: Eun Suk Seo (University of Maryland (US))
11:00	Introduction to Institute for Basic Science and Rare Isotope Science Project 30' Speaker: Prof. Sun Kee Kim (Seoul National University)
11:30	Frontiers of Nuclear Theories for the Physics with Rare Isotope Accelerators 30' Speaker: Prof. Cheung Ryong Ji (North Carolina State University)
12:00	Nuclear Physics Experiments in Low Energy 30' Speaker: Dr. Pil-Neyo Seo (TUNL, Duke University)
12:30 - 14:00	Lunch Break
13:00 - 13:45	Physics and Buddhism (This lecture is in Korean!) 45' Speaker: Prof. Changhie Hahn (Changwon National University)
14:00 - 15:30	Session 3: Astronomy, Space and High Energy Physics - I Convener: Prof. Sunkee Kim (Seoul National University/Korea Basic Science Institute)
14:00	Recent Updates and Current Issues in Cosmic Ray Physics 30' Speaker: Eun Suk Seo (University of Maryland (US))
14:30	X-Ray Astronomy: A Brief Introduction 30' Speaker: Prof. Sangwook Park (University of Texas at Arlington)
15:00	Recent Updates on Higgs Searches in ATLAS 30' Speaker: Prof. Jae Yu (University of Texas at Arlington (US))
15:30 - 16:00	Coffee Break
16:00 - 18:00	Session 4: High Energy Physics - II Convener: Prof. Sangwook Park (University of Texas at Arlington)
16:00	Recent Updates on Higgs Searches in CMS 30' Speaker: Sung Won Lee (Texas Tech University (US))
16:30	Performance of The ATLAS Transition Radiation Tracker 30' Speaker: Taeksu Shin (Hampton University (US))
17:00	Time-of-Flight PET Detector based on Silicon Photomultipliers and its Challenges 30' Speaker: Dr. Chang Lyong Kim (GE Health Sciences)
17:30	Current Status and future plans of Fermilab Facility and Its role on KoRIA 30' Speaker: Young-Kee Kim
18:00 - 18:30	Break
18:30 - 21:00	Symposium Dinner

Program – Day 2

Saturday, 21 January 2012

- 08:45 - 09:30 Coffee and Breakfast
- 09:30 - 11:45 Session 5 - The Wrap-up: Solid State, Nano, Bio Physics
Convener: Prof. Jae Yu (University of Texas at Arlington (US))
- 09:30 **Gas Electron Multiplier Detectors and its Application in High Energy Physics 30'**
Speaker: Seongtae Park (University of Texas at Arlington)
- 10:00 **Spin liquid and spin glass states in frustrated magnets 30'**
Speaker: Prof. Seunghun Lee (University of Virginia)
- 10:30 **Hyperspectral Imaging Measurement of Nanomaterials as a High-Resolution Single-molecule Sensor 30'**
Speaker: Dr. Kyuwan Lee (Bio-engineering Department, U. of California, Berkley)
- 11:00 **Discussions: Toward strong collaboration with Korea and KoRIA 30'**
- 11:30 **Wrap-up and farewell 15'**
Speaker: Prof. Jae Yu (University of Texas at Arlington (US))
- 11:45 - 13:00 Refreshment and Brunch
- 13:00 - 14:00 UTA Planetarium Show - The Astronaut



Logistics

- Lunch

- Today: please be sure to give your lunch order to Heeyeun Kim by the beginning of the morning coffee break

- Banquet

- Supported by the Korean-American Scientists and Engineers Association (KSEA)
- The Rodeo outing is cancelled
- 7:30pm, restaurant O-Mi at 2625 Old Denton Rd., Suite 326 Carrollton, TX 75007
 - Driving directions are available
 - Rides are organized for out-of-towners