

# Korea-CERN Theory Collaboration

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**CERN-Korea committee meeting 2007. 10. 22**



# I. Introduction : Motivation and Development

- Why we need Korea-CERN Theory collaboration (KCTC)?
  1. In the LHC era, CERN will become the world center of particle physics, which Korea should join.
  2. High energy exp. group has started the program this year. For its success theory group should help.
  3. CERN theory group has excellent science programs for young scientists, by which Korean particle theory community can train young postdocs or Junior faculties as several countries like Japan or Israel is doing.

## Developments

- Oct. 20th, 2006

- At 2006 KPS fall meeting (particle division congress) a committee is formed to join the Korea-CERN collaboration.

- Dec. 8 and 9, 2006

- The committee has **organized a workshop at Busan** to discuss the possible KCT collaboration, where about 40 particle theorists got together.
- At the workshop Korea particle theory community **formed a planning committee** for KCTC.
- The committee **produced a report** and submitted to the chair of particle physics division of KPS (Prof. D. C. Son).

## Planning Committee for KCT collaboration

- Chair: D. K. Hong (PNU)
- Secretary: C. H. Lee (PNU)
- Steering committee: B. H. Lee (Chair of Particle division, KPS), S. K. Oh (Kunkook), J. B. Choi (Jeonbug)
- Team Leaders:

| Teams                            | Team Leaders                  |
|----------------------------------|-------------------------------|
| Phenomenology, Astropart., Cosmo | P. Ko , S. Y. Choi, H. B. Kim |
| String Theory                    | S. Nam , S. Hyun              |
| Heavy ion, Extreme QCD, Lattice  | S. H. Lee , S. Kim            |

- August 9, 2007
  - The planning committee had an audio conferencing with the team leaders of CMS and ALICE group of Korea-CERN collaboration.
  - The planning committee submitted the KCTC proposal to MOST.
- Oct. 18, 2007
  - The planning committee made a presentation at KPS meeting at Jeju.
- Oct. 22, 2007
  - The planning committee makes a presentation at CERN-Korea committee meeting at CERN.
- Dec. 13 - 15, 2007
  - Busan Particle Physics workshop to discuss CERN-Korea Theory collaboration:  
Invitations sent to G. F. Giudice, L. Alvarez-Gaume, ...

## II. Program and Plans

- Through CERN-Korea collaboration we promote the activities of particle physics both in CERN and also in Korea and **make Korean physics community stand at the upfront.**
- The CERN-Korea theory collaboration is **open to all theorists** in Korea who are interested in this program.
- The theory group in Korea will be **running programs independent of the experimental programs**, but we will be **closely in contact with the exp. groups.**
- Eventually we would like to **establish and run programs** to promote the particle physics research such as **exchange program** for young post-docs and junior faculties.

## Plans

1. Hold a **joint workshop** between Korea and CERN every year
2. Introduce a **scholar exchange program**.
3. **Establish a hub** at KIAS, for instance, for CERN theorists to stay when they visit Korea.
4. **Send a few young post-docs** to CERN every year for the period of one or two years. (CERN fellow)
5. **Send several graduate students** to CERN to participate in summer programs at CERN.

### III. Goals and Status

- Short term goals (2006 - 2008):
  1. Setting-up an agreement between Korea and CERN, which includes **a theory program**.
  2. Endorsement from both organizations.
  3. **Workshops** (Dec. 2006: Dec. 2007: 2008 ?)
- Long term goals (2009-)
  1. Active Involvement in the program.
  2. Promoting the exchange and training programs.
- **The status and Short Term Agenda**
  1. Consensus among Korean particle theorists. ✓
  2. Consensus among Korean Physics Community. *ongoing*
  3. Endorsement from Korean Government (*Dec. 2007 or 2008?*)