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The High Energy Physics Group, Universidad de Los Andes (Colombia) in CMS

Experimental High Energy physics is an emerging field in Colombia. There is already one PhD program, in this research area, offered by Universidad de los Andes in Bogota. Our PhD program was just approved few years ago, we will get our first PhD graduate by the beginning of 2007, his thesis work consists of doing analysis of Fermilab Dzero experiment data.

The news of being accepted in CMS collaboration, on march this year, has been received in our physics department with a lot of excitement. We believe CMS will help us to push our PHD graduate program, for the next 10 to 15 years, and will allow us to train our students with the best scientists of the field and with research projects that are at the physics frontier.

Our activities in CMS will also allow technology transfer to our country. We have just submitted a proposal to COLCIENCIAS (The Colombian agency to fund science) requesting support for building up computing infrastructure in our university, and for supporting the stay of two Colombian engineers for two years at CERN to collaborate in technical tasks in CMS. The training of the two engineers in high technology will have a positive impact once they return home. About computing, our goal is to build, within a year, a GRID tier 3 in our university which will allow our physicist and our students to participate in CMS data analysis. On the longer term we would like to get involved, in our CMS activities, other universities in our country to plant a seed for future experimental high energy physics groups, as it has happened already in a few Latin American countries.

Our entrance in CMS has coincided with the beginning of the HELEN program (High Energy Physics Latin American European Network) which will be providing financial support for mobility of Latin american students and researchers during the next three years. Our university is part of this network. We thank the efforts of Luciano Maiani for starting up the HELEN program.

Our main contribution to CMS will be manpower: young brilliant graduate students very motivated in learning and helping in the startup phase and data analysis of the experiment. We have already one graduate student stationed at CERN since January this year, Camilo Carrillo. During his first 6 months of his stay he has helped with the RPC commissioning under the supervision of Archana Sharma and now he is starting to participate in software development for data quality monitoring, under the supervision of Marcello Maggi.

The High energy physics group of Universidad de Los Andes is composed of three professors: Bernardo Gomez, Juan Carlos Sanabria and Carlos Avila and the student Camilo Carrillo. We plan to keep increasing, every year, the number of Colombian graduate students in CMS. We have participated in the past in Fermilab experiments E710, E811 and D0. We believe our previous experience in hadron collider experiments will be useful for our work in CMS. We thank CMS collaboration for giving us the chance to work in this exciting and challenging experiment.

Carlos Avila