Grant Form Text

March 9, 2016

Link del formulario:
`http://supernovae.in2p3.fr/users/jacdz/grantform.php`

1 Brief CV

1.1 Education

-Universidad de los Andes Bogot, Colombia Physics, Bachelor of Science Expected graduation, September 2016 GPA 4.25/5.00 Computing Engineering, Bachelor of Engineering Expected graduation, April 2017 GPA 4.25/5.00 Japanese Language and Culture, Minor

-Tokyo University of Marine Science and Technology Tokyo, Japan Visiting Student May 2014-June 2014 Control and Robotics Laboratory

-Kyoto Institute of Culture and Language Kyoto, Japan Intermediate Japanese Student October 2013-March 2014

-Lyce Franais Louis Pasteur Bogot, Colombia Student Graduated, July 2011 Scientific Bachalaurat, Mention Bien

1.2 Research Experience

-Universidad de los Andes Bogot, Colombia Undergraduate Research Assistant August 2015 June 2016 Astronomical Image Processing from Large All-Sky Photometric Surveys for the detection and measurement of transients under the mentorship of PhD student Juan Pablo Reyes and the direction of professor Marcela Hernandez.

-Fermi National Laboratory Neutrino Division Batavia, U.S.A. IPM Intern Muon G-2 Experiment June July August 2015 Part of the team for the

Test Beam of a Straw Detector Prototype, was in charge of the High Voltage and assisted with the analysis of the data taken under the mentorship of scientist Brendan C Casey.

-Tokyo University of Marine Science and Technology Tokyo, Japan May - June 2014 Visiting Student - Control and Robotics Laboratory Assisted with the integration and control of a helicopter with Arduino under the supervision of professors Sho and Ito.

1.3   Teaching Experience

-Universidad de los Andes Bogot, Colombia Undergraduate Teaching Assistant 2011,2012,2013,2014,2015 Undergraduate Teaching Assistant for sections of Object Oriented Programming 1, Data Structures, Modeling, Simulation and Optimization, and Computational Methods courses.

1.4   Additional Work Experience

-Mario Math Bogot, Colombia Sept 2011-Present Tutor High School Physics, Chemistry, Math and Biology Tutoring in both French and Spanish.

1.5   Skills

Software and programming
-Java, Python, IPython, C, MATLAB, Processing, Arduino, Assembler, UML, Git, PHP. -Familiar with Linux, Windows and MAC OS. -Play the Piano since 6 years old

Techniques
-Familiar with group work techniques: TSP, XP. -Basic electronic circuits skills (design and fabrication of prototypes).

Languages
-French (fluent) -English (fluent) -Spanish (fluent) -Japanese (Upper Intermediate, JLPT level 3)

2 Current or projected research activities and motives for wishing to attend the conference:

Currently Im working on my undergraduate physics thesis on computational cosmology, Laniakea in a Cosmological Context with Professor Jaime Forero at Universidad de los Andes, here in Bogot, the capital of Colombia. I find the topic fascinating and Im thrilled to be doing actual research. This conference is an incredible chance to immerse myself in the community, learn of all the different work that is being done and share my work. In addition to this work, I am also a research assistant in astronomical image processing for the Large Synoptic Survey Telescope (LSST). This work will be the foundation of my computing engineering senior thesis and is also related to this conference. Therefore the Large Scale Structures and Galaxy Flows conference is a great opportunity to interact and learn from leading researchers in the field, and to help focus my research interests as I start looking into graduate school possibilities.

I submitted the abstract of our work to the Cosmic Flows conference and got accepted to present in the Poster Session. Im really looking forward to this life experience opportunity.

Nevertheless, Vietnam is quite far from Colombia (17,916 km from Bogota to Quy Nhon according to Google). I am therefore applying for financial support to help me cover the significant expenses (more than 1500 dollars in airfare alone).

I thank you very much for your time and help,
Sergio Daniel Hernndez Charpak