

## Funding Application for a Study Trip for Groups of Foreign Students to Germany

### 1. Information on the foreign university

Name of the applicant university	Universidad de los Andes		
First name, family name of the university teacher applying for the visit	Jaime Forero-Romero		
Institute / Department	Physics Department		
Position at the university	Assistant Professor	Sex	M
Postal address of the Institute, country	Carrera 1-18A-10, Bloque 1p. Bogotá, Colombia		
Telephone	+571-339-4941 Ext. 5183		
Fax	+571-332-4516		
E-Mail	je.forero@uniandes.edu.co		

For applicants not holding a postdoctoral qualification (Habilitation): I herewith confirm that I am employed as a lecturer and am entitled to sign on behalf of the university.	<input checked="" type="checkbox"/>
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### 2. Previous funding for DAAD study trips by students

Year	PKZ / Reference No.

### 3. Travel dates

Outward journey (Date, place)	1.12.2013 , Bogotá (Colombia)	
Means of transport	Flight	
If travelling with own coach / bus, coach / bus also available in Germany?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Return journey (Date, place)	12.12.2013 , Heidelberg
Means of transport	Train to Frankfurt , then flight from there .

#### 4. Return visit

Has there been a return visit of German students (Date, place)?	
Will there be a return visit of German students (Date, place)?	
No return visit organised	<input checked="" type="checkbox"/>

#### 5. Overview of projected costs / Funding applied for (grant level)

Only complete this section if the group comes from one of the countries specified in No. 1.1 of the Information Sheet on "Study Trips / Seminars for Groups of Foreign Students to Germany".

##### a) Expected **expenses** for all applied participants

1	Outward and return travel	€
2	Accommodation	€
3	Meals	€
4	Transport local	€
5	Other costs:	€
	<b>Sum total 1 - 5</b>	€

##### b) Expected **income** for all applied participants excluding DAAD grant

1	University contribution	€
2	Personal contribution by participants	€
3	Donations	€
4	Other income:	€
	<b>Sum total 1-4</b>	€

##### c) Sum total a – Sum total b

<b>DAAD funding applied for grant</b>	€
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## 6. Participants

a) Students, who apply a DAAD grant

Family name	First name	m/f	Date of birth	Semester (Academic semester at the time of the visit)	Subject	Target degree	Language skills (please state the relevant language for the visit and grade the language proficiency: 1=fluent, 2=good, 3=basic skills, 4=none)
1. Remolina	Maria Camila	F	12.05.1995	3	physics	physicist	1 (English)
2. Ramos	Liz Angelica	F	25.07.1995	4	electrical engineering	engineer	2 (English)
3. Hoyos	Paulina	F	13.06.1994	4	physics	physicist	2 (English)
4. Cordenas	Alejandro	M	2.05.1992	9	physics	physicist	1 (English)
5. Pacheco	Andrea	F	17.05.1988	10	physics	physicist	2 (English)
6. Peña	Harold	M	19.05.1989	9	physics	physicist	1 (English)
7. Naizague	Camilo	M	4.08.1989	9	physics	physicist	2 (English)
8. Guzman	Isabel	F	24.07.1990	7	physics	physicist	2 (English)
9. Gomez	Maria Fernanda	F	21.12.1994	3	physics	physicist	1 (English)
10. Muñoz	Manuel	M	7.10.1993	6	physics	physicist	2 (English)
11. Estupinan	Alex	M	20.04.1989	7	physics	physicist	2 (English)
12. Alvarado	Jaime	M	24.08.1992	6	astronomy	astronomer	2 (English)
13. Castiblanco	Lina	F	6.01.1993	10	physics	physicist	2 (English)
14. Bonilla	Angie	F	23.12.1994	4	cadastal engineering	engineer	2 (English)
15. Lopez	Juan Camilo	M		7	astronomy	astronomer	2 (English)

b) accompanying university teacher, who applies a DAAD grant

Family name: <b>Forero-Romero</b>	First name: <b>Jaime</b>	Title: <b>Prof. Dr.</b>	Sex: <b>M</b>
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## 7. Statement

I, the undersigned, herewith state that, to the best of my knowledge, the information I have provided in this application is correct and complete. Agreement on the group visit has been reached with the German partner universities specified in the programme. The visit programmes agreed with the German universities/institutes will be carried out as documented in the application. I acknowledge and accept the terms and conditions as specified in the Information Sheet "Study Trips/Seminars for Groups of Foreign Students to Germany". This application package includes the DAAD Application Form and the papers and documents as specified in the Information Sheet "Study Trips/Seminars for Groups of Foreign Students to Germany", item IV, Nos. 1-5.

I confirm that the visit applied for here is not a required/mandatory excursion.

Place: **Bogotá**

Name: **Jaime E. Forero-Romero**

Date: **30.04.2013**

Signature of the university teacher applying for the visit:



# Application for a Study Trip for Colombian Students

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## First Colombo-German Astronomy Winter School 2013

Jaime E. Forero-Romero, PhD

Assistant Professor, Universidad de los Andes, Bogotá, Colombia

on behalf of the *Red Virtual de Estudios en Ciencias Astrofísicas* (REVECA)

30.04.2013

This is an application for a Study Trip to Germany from 1.12.2013 till 12.12.2013. The objective is to take a group of bright Colombian students to leading German institutes in the area of Astronomy in order to take lectures, develop small research projects and get a clear picture of what it takes to pursue graduate studies in Germany.

This application is done under the A-Modality, whereby the DAAD takes most of the responsibility for the logistics of the trip. However, we are willing to make the trip under the B-Modality where we take full responsibility to make all the logistic arrangements. The trip will focused on three cities: Potsdam, Tautenburg and Heidelberg. In total seven different Universities/Institutes will be visited.

The student group is composed by the 15 most promising young astronomers in Colombia. They come from seven different universities and five different cities. The most important selection criteria were academic excellence, promise to be great researchers and passion for astronomy.

In the next section we present a detailed justification for this trip, an itinerary and the preparation process before the trip. Attached as an annex are the invitation letters from German institutions and the letters of support from the Colombian institutions.

# 1. Justification

Astronomy is a key scientific area for development. It attracts young minds to the study of math, sciences and engineering. It is an area that ultimately tries to answer deep questions related to our cosmic origins while making ground-breaking progress to build new telescopes, instruments and detectors.

Colombia is a country where this area of knowledge is starting to develop at Universities. Since 2008 there are national meetings such as the Colombian Congress for Astronomy and Astrophysics (COCOA), which has held three meetings ever since in Medellin, Bogotá and Bucaramanga with a strong attendance of 100+ people including researchers, students and guests. During the last COCOA 2012 in Bucaramanga, we realized that developing Astronomy in Colombia crucially depends on building stronger bonds of collaboration among all the researchers in the country and giving the best opportunities to the youngest generation. Organizing a school with students from all over the country in Germany seemed to be a great way to reach that goal.

With scientific contacts in Potsdam, Heidelberg and Tautenburg we decided to focus the school in those cities. The common theme is Extragalactic Astrophysics, given that its already one of the strongest research areas in Colombia.

**School's philosophy and structure.** The main objective of the school is two-fold. First, get the Colombian students to interact as much as possible with graduate students and researchers in Germany. Second, give the Colombian students the opportunity to get first hand information on how to pursue graduate studies in Germany. This is why we have structured the mornings with presentations highlighting the science done at each institute and the structure of graduates schools in Germany. The afternoons are devoted to work on small projects together with PhD students and postdocs. There will also be two opportunities (in Potsdam and Heidelberg) where the students will give short talks to present the scientific results of their work.

**About the student group.** With the above mentioned objectives we decided to look for the most promising undergrad students in Colombia. We look for three elements in the students: academic excellence, potential to be researchers and passion for astronomy. We also required that the students should have a good command of spoken and written English.

With these requirements we ended up with an heterogeneous group of students. All of them are between the third and tenth semester of their undergraduate careers. They all have experience with small research projects and a solid knowledge of basic subjects (mechanics, electromagnetism, calculus and programming) needed to get the most out of the school. Most of them have also spent time abroad in summer schools. There are a few that are ready to start their masters in 2014.



Nevertheless, as a preparation to attend the school we will hold a seminar on basic subjects of Extragalactic Astronomy<sup>1</sup>.

**About the professor leading the group.** Jaime E. Forero-Romero is an astrophysicist and assistant professor in the Physics Department at the Universidad de los Andes in Bogota (Colombia). He studied Physics at the École Normale Supérieure in Paris and holds a PhD in Physics given by the École Normale Supérieure de Lyon. He lived four years in Berlin while being a postdoc (Wissenschaftlicher Mitarbeiter) at the Leibniz Institute for Astrophysics. In 2011 he received the Gruber Fellowship by the International Astronomical Union to spend one year in the Astronomy Department at UC Berkely as a postdoctoral researcher in the galaxy formation group. He still keeps an active scientific collaboration with members of the Cosmology Group in Potsdam.

**Professors and Colombian Universities supporting this application.** This application was possible with the help of many other astronomy researchers in Colombia, who performed the student selection and helped to shape this proposal. They are: Giovanni Pinzón and Gregorio Portilla (Observatorio Astronómico Nacional), Luis Núñez and Jerson Reina (Universidad Industrial de Santander), César Valenzuela (Universidad del Valle), Edilberto Sánchez (Universidad Distrital Francisco José de Caldas), Nelson Vera (Universidad Pedagógica y Tecnológica de Colombia) and Jorge Zuluaga (Universidad de Antioquia).

## 2. Preparation to the School

As a preparation for the trip, the Postgraduate Seminar of the Astronomy Group at Universidad de los Andes will be open to all the students participating in the Winter School. This seminar will be lead by the Prof. Forero-Romero.

For the students living in Bogotá (half of the students in the group) it will be possible to meet in person on a weekly basis at Universidad de los Andes to attend the Seminar. The students outside Bogotá will work remotely with their tutors in each city, so they can follow the same themes. Once every month we will meet virtually via teleconferences in order to discuss the advances of that month. The seminar will be held in English as training for the School.

This 4-month seminar will have the following time-line.

- First Month. Present basic concepts on the theme of the School (Extragalactic Astronomy)

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<sup>1</sup>This is explained in detailed in Section 2 of this document

- Second Month. Get to know the research subjects of the groups at the Institutes to be visited in Germany.
- Third Month. Pick two (2) of these research subjects to contact tutors in Germany to ask for introductory literature.
- Fourth Month. Develop in depth the beginning of the small research projects which will be finished during the visit to Germany.

The mechanics of the seminar will be 20 minute-long presentations by the Prof. Forero-Romero, visiting scientists and the students. We will follow the scheme used during the second semester of 2012 in the Undergraduate Astronomy seminar at Universidad de los Andes<sup>2</sup>.

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<sup>2</sup>See this webpage for more details: <http://forero.github.io/AstroSeminarUniandes/>

### 3. Itinerary

Day	Date	Time	Activity
Sunday	1.12.2013	8PM	Travel from Bogotá to Berlin
Monday	2.12.2013	3PM	Arrival to Berlin
Tuesday	3.12.2013	9AM-11AM	Scientific Talks at the Leibniz Institute for Astrophysics (AIP)
		11AM-12AM	Tour around AIP
		1PM-5PM	Work with tutors (AIP)
Wednesday	4.12.2013	9AM-11AM	Scientific Talks at the Max Planck for Gravitation (AEI)
		11AM-12AM	Tour around AEI
		1PM-5PM	Work with tutors (AIP/AEI)
Thursday	5.12.2013	9AM-10AM	Talks: Graduate Studies in Potsdam (AIP)
		10AM-12AM	Tour of Telegrafenberg's AIP site
		1PM-5PM	Work with tutors (AIP/AEI)
Friday	6.12.2013	9AM-12M	Work with tutors (AIP/AEI)
		2PM-5PM	Students' presentations (AIP)
Saturday	7.12.2013	8AM-3PM	Train to Jena - Bus to Tautenburg
		4PM-7PM	Tour of all the observational facilities
		7PM-12PM	If weather permits: Observing Practice
Sunday	8.12.2013	9AM-2PM	Bus to Jena - Train to Heidelberg
Monday	9.12.2013	9AM-11M	Scientific Talks at Haus der Astronomie (HdA)
		11AM-12M	Tour around the Max Planck Institut for Astronomy (MPIA)
		13PM-17PM	Work with tutors (HdA)
Tuesday	10.12.2013	9AM-11AM	Talks: graduate studies in Heidelberg (HdA)
		11AM-13M	Tour around Zentrum fuer Astronomie (ZAH) at Heidelberg Universitaet.
		13PM-17PM	Work with tutors (HdA)
Wednesday	11.12.2013	9AM-12AM	Work with tutors (HdA)
		2PM-4PM	Students' presentations (HdA)
Thursday	12.12.2013	11AM	Travel from Heidelberg to Bogotá



## 4. Invitation Letters from Germany

Invitation letters from the following German institutions are included:

- Leibniz-Institut fuer Astrophysik Potsdam
- Haus der Astronomie (Heidelberg)
- Max Planck Institut fuer Astronomie (Heidelberg)
- Max Planck Institut fuer Gravitationsphysik (Potsdam)
- Thueringer Landessternwarte Tautenburg



# Leibniz-Institut für Astrophysik Potsdam

Leibniz-Institut für Astrophysik Potsdam · An der Sternwarte 16 · 14482 Potsdam

DAAD Information Center  
Carrera 11A No. 93-52  
Bogotá / Colombia

Leibniz-Institut für  
Astrophysik Potsdam (AIP)  
Stiftung bürgerlichen Rechts  
An der Sternwarte 16  
14482 Potsdam  
Deutschland  
+49 331 74 99-0  
[www.aip.de](http://www.aip.de)

Potsdam, 26.04.2013

## Vorstand

Prof. Dr. Matthias Steinmetz  
Wissenschaftlicher Vorstand  
+49 331 74 99-381  
[msteinmetz@aip.de](mailto:msteinmetz@aip.de)

MS / CR

Sehr geehrte Damen und Herren,

wir freuen uns sehr über die Initiative von Herrn Prof. Jaime Forero-Romero, Universidad de los Andes in Kolumbien, eine Astrophysik-Winterschule vom 2. bis 11. Dezember 2013 in Deutschland zu organisieren. Prof. Forero-Romero hat als Postdoc von 2007 bis 2011 in unserem Institut gearbeitet. Mitglieder der Abteilung Kosmologie unseres Instituts arbeiten auch weiterhin mit ihm an gemeinsamen wissenschaftlichen Projekten. Am Ende seines Aufenthaltes an unserem Institut hat er den 8. AIP-Thinkshop 2011 zum Thema "Young and Bright: Understanding High Redshift Structures" organisiert. Diese Konferenz war sehr erfolgreich. Wir unterstützen ausdrücklich sein Vorhaben, eine Winterschule in Deutschland zu organisieren und mit einer Gruppe kolumbianische Studenten unser Institut zu besuchen.

Wenn der Besuch der Studenten bewilligt wird, werden wir ihnen ermöglichen, die vorhandenen Ressourcen des Instituts zu nutzen (Zugang zu Computern, Bibliothek, Arbeitsmöglichkeiten). Um die Zusammenarbeit mit unseren Studenten anzuregen, werden wir kleinere Projekte vorschlagen, die von den Gästen während ihres Besuches bearbeitet werden können, wobei unsere Doktoranden sie als Tutoren unterstützen. Außerdem planen wir, unser Institut (insbesondere auch die Abteilungen zur Gerätentwicklung) in einem Rundgang vorzustellen. Die Kommunikation mit den Studenten wird ausschließlich auf Englisch erfolgen.

Weiterhin bieten wir für die Studenten zwei Vorlesungen in unserem Institut an: Dr. Noam Libeskind wird über "Properties of dwarf and satellite galaxies in the Local Group" sprechen und Dr. Cristina Chiappini über "The nature of the First Stars".



## Leibniz-Institut für Astrophysik Potsdam

Darüber hinaus wird der Koordinator der Doktorandenausbildung am AIP, Herr Prof. Lutz Wisotzki, einen Überblick über unsere Doktorandenausbildung geben, die in Zusammenarbeit mit der Universität Potsdam erfolgt.

Die geplante Schule eröffnet neue Perspektiven für eine junge Generation von Astronomen in einem Entwicklungsland. Wir sind darüber informiert worden, dass die Studenten in Kolumbien landesweit ausgewählt worden sind. Wir unterstützen dieses Vorgehen ausdrücklich, da auf diese Weise die vielversprechendsten Talente von sieben führenden Universitäten des Landes die Möglichkeit bekommen sollen, die astrophysikalische Forschung an deutschen Instituten kennenzulernen.

Wir würden uns sehr freuen, wenn der DAAD dieses Projekt unterstützt und 15 Studenten aus Kolumbien ermöglicht, im Dezember dieses Jahres unser Institut in Potsdam zu besuchen.

Mit freundlichen Grüßen

Prof. Dr. Matthias Steinmetz

# Haus der Astronomie

Zentrum für astronomische Bildungs- und Öffentlichkeitsarbeit



Haus der Astronomie · MPIA-Campus · Königstuhl 17 · 69117 Heidelberg

DAAD Information Center  
Carrera 11A No. 93-52  
Bogotá / Colombia

Haus der Astronomie  
Am MPIA Campus  
Königstuhl 17  
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[Tel:+49-6221-528291](tel:+49-6221-528291)  
[www.haus-der-astronomie.de](http://www.haus-der-astronomie.de)

Coordinator international programs  
Dr. Cecilia Scorza  
Tel. +49-6221-528291  
[scorza@hda-hd.de](mailto:scorza@hda-hd.de)

Heidelberg, 26.04.2013

Dear DAAD committee,

we at the Haus der Astronomie in Heidelberg support strongly the initiative led by Prof. Jaime E. Forero-Romero at Universidad de los Andes in Colombia to arrange a winter school on astrophysics in Germany during the dates 2-11 December 2013 for a group of Colombian students.

I met Prof. Jaime Forero in November 2012 at an astronomical conference held in Bucaramanga Colombia, in which I presented a talk about the "Strategic Plan 2010-2010" of the International Astronomical Union (IAU) related to the topic "astronomy for development". Since then I have been in close contact with Prof. Forero trying to develop strategies to foster the development of professional astronomy in Colombia.

In this letter we confirm that we are going to provide the rooms required for the following lectures (in English) of our Institute and organize a scientific program with Max-Planck-Institute (MPIA) and University members:

- Monday 09.12.2013, Prof. H-W Rix, Director of the MPIA, "Galaxies and Cosmology"
- Tuesday 10.12.2013, Dr. Christian Fendt, Coordinator of the international Max-Planck research school, "On the possibilities for graduate studies in Heidelberg".
- Wednesday 11.12.2013, Work with tutors

We will also provide a tour of all the facilities at the Institute and other four institutes in Heidelberg including: the Max-Planck-Institute for Astronomy, the Observatory of the Heidelberg University, the Astronomisches-Rechen-Institute, the Institut für theoretische Astrophysik and das Heidelberg Institut für theoretische Studien (HITS). Furthermore, if the group trip is confirmed, we will prepare several short projects that the students will be able to tackle during their visit. These projects will be tutored by graduate students.

This School will open new perspectives to a new generation of astronomers in a developing country. We know that their selection process aimed at picking the best students in the country. We hope that this demonstration to encourage the best young minds will be recognized by the DAAD.

Best regards,

Coordinator of international programs

Haus der Astronomie · Tel.: (06221) 528-0 · E-Mail: [info@hda-hd.de](mailto:info@hda-hd.de)  
<http://www.haus-der-astronomie.de>

# Max-Planck-Institut für Astronomie

Christian Fendt

PD Dr. rer. nat.

Max-Planck-Institut für Astronomie \*\* Königstuhl 17 \*\* D-69117 Heidelberg \*\* Email: fendt@mpia.de



DAAD Information Center  
Carrera 11A No. 93-52  
Bogota  
Columbia

Heidelberg, 20.4.2013

## Ref.: Besuch Prof. Forero-Romero mit einer Studentengruppe

Sehr geehrte Damen und Herren,

ich bin der wissenschaftliche Koordinator der Doktoranden-Schule *International Max Planck Research School (IMPRS) for Astronomy and Cosmic Physics at the University of Heidelberg* und wiss. Mitarbeiter am Max-Planck-Institut für Astronomie.

Unsere Doktoranden-Schule besteht aus etwa 90 Doktoranden, unter ihnen im Durchschnitt etwa 10-20% Südamerikaner. Insgesamt sind wir sehr international orientiert mit etwa 70% ausländischer Studenten. Jedes Jahr bekommen wir etwa 5 Bewerbungen aus Kolumbien und haben auch schon eine sehr gute Studentin aus Kolumbien zur Promotion einstellen können. Wir finden, dass diese Bewerber in der Regel eine tiefe und vollständige Ausbildung in Physik aufweisen können.

Insofern freut es mich sehr, dass Prof. Forero-Romero gleich mit einer ganzen Gruppe interessierter Astronomie-Studenten Heidelberg besuchen möchte. Natürlich werde ich gerne für Informationsgespräche und einen Vortrag (in englischer Sprache) zu den Themenbereichen *Promotion in Heidelberg*, *Bewerbungsablauf* und den *Anforderungen* der IMPRS und der Fakultät für Physik und Astronomie in Heidelberg zur Verfügung stehen. Terminlich ist dafür der 10.12.2013 vorgesehen.

Mit freundlichen Grüßen,

Christian Fendt



Max-Planck Institut  
für Gravitationsphysik  
(Albert Einstein-Institut)  
Golm bei Potsdam

Department of  
Astrophysical Relativity

**Dr. Pau Amaro-Seoane**  
Senior Scientist

Am Mühlenberg 1  
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Prof. Jaime E. Forero-Romero  
Assistant Professor  
Departamento de Fisica  
Calle 18A # 1 - 10  
Bloque Ip, Of. 208  
Universidad de los Andes  
AA 4976, Bogota, Colombia

Golm, April 29, 2013

**Re: Winter School in Germany: AEI**

Dear DAAD committee,

This is to acknowledge our support of the effort of Prof. Jaime E. Forero-Romero to organise a winter school in Germany next Autumn. For the visit of the students he will bring, I will book a room to attend two lectures given by me and a senior postdoc of the institute, Alberto Sesana, on sources of gravitational wave radiation. Moreover, Dr. Elke Müller, in charge of outreach, has kindly agreed to talk to them about the possibilities for graduate studies at AEI.

She will organise a tour of all the facilities, like our supercomputer cluster. Both, the talks and the tour, will be in English. Once the trip is confirmed, we will coordinate some short projects for the students to work on during their visit.

A tentative schedule for the visit to the AEI is: Wednesday 4.12.2013 in the morning: Scientific talks given by me and Dr. Sesana, followed by the talk about future prospects at the AEI by Dr. Müller. Later, on the same day, she will lead a guided tour to our facilities, including the supercomputers, library and maybe a short meeting with the director of the institute, if his agenda allows for it. On the same day, after lunch and until approximately 17h00, they will work with tutors. That work will be continued on Thursday and Friday late afternoon-evening.

We hope that this will allow new links to astrophysicists in Colombia, and we trust that Prof. Forero will pick up the best students to attend this opportunity.

With kind regards, Pau Amaro-Seoane





**THÜRINGER LANDESSTERNWARTE TAUTENBURG**

Karl-Schwarzschild-Observatorium

Prof. Dr. Artie Hatzes



Thüringer Landessternwarte Tautenburg, Sternwarte 5, D-07778 Tautenburg

**DAAD Information Center**

Carrer 11A No. 93-52

Bogotá, Colombia

Ihr Zeichen, Ihre Nachricht vom

Unser Zeichen, Unsere Nachricht vom  
hat

Durchwahl, Name  
0049-3 64 27/8 63-51

Datum  
25th April 2013

**Einladung, Besuch der Thüringer Landessternwarte  
im Rahmen einer DAAD Studienreise**

Sehr geehrte Damen und Herren,

ich lade Professor Jaime Forero-Romero von der Universidad Nacional de Colombia herzlich dazu ein, im Rahmen seiner Studienreise mit einer Gruppe von Studierenden die Thüringer Landessternwarte Tautenburg zu besuchen. Der Besuch und das Informationsgespräch werden am 7. Dezember 2013 stattfinden.

Die Gruppe von Professor Estrada wird eine Führung durch die Einrichtungen der Thüringer Landessternwarte erhalten. Wir erklären den Studierenden, wie das 2-Meter-Alfred-Jensch-Teleskop für die astronomische Forschung des Instituts eingesetzt wird und mit welchen Instrumenten wir arbeiten. Des Weiteren zeigen wir der Gruppe das LOFAR-Teleskop an der Sternwarte und erklären, wie dieses neuartige Radioteleskop Daten sammelt und verarbeitet.

Die Führung und das Informationsgespräch werden auf Englisch abgehalten. Ich freue mich auf den Besuch von Professor Estrada und seiner Studiengruppe.

Für weitere Fragen stehe ich gerne zur Verfügung.

Mit freundlichen Grüßen

Prof. Dr. Artie Hatzes

Direktor

Thüringer Landessternwarte Tautenburg



## 5. Support Letters from Colombia

Support letters from the following Colombian institutions are included:

- Universidad de los Andes (Bogotá)
- Observatorio Astronómico Nacional (Bogotá)
- Universidad de Antioquia (Medellín)
- Universidad Distrital Francisco José de Caldas (Bogotá)
- Universidad Industrial de Santander (Bucaramanga)
- Universidad del Valle (Cali)
- Universidad Pedagógica y Tecnológica de Colombia (Tunja)

Bogotá, 29<sup>th</sup> April, 2013

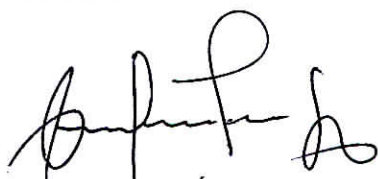
DAAD Travel Committee

Dear sirs:

I want to express my support to the initiative led by professor doctor Jaime E. Forero-Romero to develop an Astronomy Winter School in Germany with the sponsorship of DAAD in December of the current year. In this initiative fifteen young and bright undergraduate students from all over the country (3 of which come from the Physics Department Universidad de los Andes) will be given the unique opportunity to get in contact with graduate students and leading researchers in the field of Extragalactic Astronomy.

This experience will be of great value the Colombian Astronomical community at large, which will benefit in the long run from the friendship that will be tied during the trip. We, at Universidad de los Andes, are sure that the growth of a stronger local scientific community is a necessary basis to establish a solid ground for future scientific collaboration between Colombia and Germany.

Best regards,



Carlos Arturo Ávila Bernal  
Chair

Physics Department, Universidad de los Andes

 **Universidad de  
los Andes**

DEPARTAMENTO DE FÍSICA

J. Rodríguez



UNIVERSIDAD NACIONAL DE COLOMBIA  
**SEDE BOGOTÁ**  
FACULTAD DE CIENCIAS  
OBSERVATORIO ASTRONÓMICO NACIONAL

Bogotá, April 29th 2013

Dear Mame / Sir:

**Travel Program Selection Committee**  
**German Academic Exchange Service (DAAD)**

On behalf of the *Observatorio Astronómico* at *Universidad Nacional de Colombia* in Bogotá, we would like to manifest our unrestricted support to the initiative **Winter School in Astrophysics 2013** which has been prepared by *Jaime Forero*, professor of the *Universidad de los Andes* at Bogotá with the help of other astronomy researchers in Colombia, who performed the student selection and helped to shape the final version of the proposal.

During **Winter School in Astrophysics 2013** the selected students will visit seven Research Institutes at Germany in order to develop small scientific projects in instrumentation, theory and observation, mainly in the area of extragalactic astrophysics. A total of 15 students coming from seven universities from whole country will attend the school. The most important selection criteria were academic excellence, promise to be great researchers and passion for astronomy. From *Univesidad Nacional de Colombia*, the selected students are: **Andrea Liliana Pacheco** and **Alejandro Cárdenas**. Both of them are at the final stage of the undergraduate program in physics and both have a strong interest to continue their formation in astrophysics.

The **Winter School in Astrophysics 2013** is a very important academic event for the development of astronomy in Colombia due to the high scientific level of the academic duties that will be developed. We believe that this is a brilliant initiative that certainly will open new horizons for the participants concerning their formation and future field of action.

Please do not hesitate to contact me for any question related to this supporting letter.

Best Regards,

**José Gregorio Portilla**

Director Observatorio Astronómico / Facultad de Ciencias

**GIOVANNI PINZÓN ESTRADA**

**Giovanni Pinzón Estrada**

Profesor Asistente Observatorio Astronómico / Facultad de Ciencias



Grupo de  
Física y Astrofísica  
Computacional

Instituto de Física - Universidad de Antioquia



*Medellín, April 29 de 2013*

**Travel Program Selection Committee**  
German Academic Exchange Service (DAAD)

Dear Sirs,

Hereby, we would like to manifest our deepest enthusiasm and unrestricted support to the initiative **Winter School in Astronomy and Astrophysics**. We believe that this is a very innovative initiative that will link to our advanced students of physics and astronomy with internationally recognized German professionals in the area of Astronomy and Astrophysics. Clearly, our students and young researchers will have the opportunity to be exposed to a level of world-class research environment and high professionalism. Also we want to express our support to the idea that a group of students, coming from several good universities in Colombia, could participate in this experience.

This type of group visit, will create friendship relations among students from different parts of Colombia that will generate future collaborations and exchanges within our country. Additionally, the fact they belong to different professional levels, will also promote cooperations. more advanced can support students who has just recently started interest to the Astronomy and Astrophysics.

For all of the above reasons, we reiterate our strong support for this initiative

A handwritten signature in black ink, which appears to read "Jorge Iván Zuluaga".

**JORGE IVÁN ZULUAGA**

Head Undergraduate Program in Astronomy  
Instituto de Física, FCEN / UdeA  
**e-mail:** [jzuluaga@fisica.udea.edu.co](mailto:jzuluaga@fisica.udea.edu.co)



UNIVERSIDAD DISTRITAL  
FRANCISCO JOSÉ DE CALDAS

Bogotá, D.C. April 29<sup>th</sup>, 2013.

**CERI 0337**

Doctor:

**SVEN WERKMEISTER**

DAAD Director

Cra. 11A # 93-52

Bogotá, Colombia

[daadcentrodeinformacionbogota@gmail.com](mailto:daadcentrodeinformacionbogota@gmail.com)

**REF: Institutional presentation winter school call "Extra Galactic Astrophysics"**

Dear Sven:

Yours sincerely Inter-institutional Relations Center -CERI of the University District  
Francisco José de Caldas, Bogotá - Colombia.

I present LIZ RAMOS ANGELICA MEDINA, identified with ID No. 95.072.511.590 and student code 20121005044, Student of Electronic Engineering and ANGIE VICTORIA BONILLA BAUTISTA, identified with ID No. 1.032,468,666 and student code 20121025101, Student Cadastral and Geodetic Engineering. Our students were selected to apply to the school's winter reference for their academic merit and active participation in the research group "*Astroengineering*" of the University District.

The University District has academic programs for student mobility, they must apply to calls for Academic Mobility in the *Research Center* or at the *Inter-institutional Relations Center -CERI*.

The University District Francisco José de Caldas, is committed to the development of their students and looking for academic excellence, recognizes the importance of conducting international academic meetings involving young Colombians in training process, for the above and recognizing the organization winter school on "*Extragalactic Astrophysics*" by the *DAAD* will bring benefits in science and technology for the country, ensuring a commitment by the students to return the country to continue their academic activities and feedback their experiences.

Sincerely,

**ALEXIS ADAMY ORTIZ MORALES**

Inter-institutional Relations Center Director



Universidad  
Industrial de  
Santander

Bucaramanga, 29 de abril de 2013

Travel Program Selection Committee  
German Academic Exchange Service (DAAD)

Dear Sirs

Hereby, we would like to manifest our deepest enthusiasm and unrestricted support to the initiative Winter School in Astronomy and Astrophysics. We believe that this is a very innovative initiative that will link to our advanced students of physics with internationally recognized German professionals in the area of Astronomy and Astrophysics. Clearly, our students and young researchers will have the opportunity to be exposed to a level of world-class research environment and high professionalism. Also we want to express our support to the idea that a group of students, coming from several good universities in Colombia, could participate in this experience. This type of group visit, will create friendship relations among students from different parts of Colombia that will generate future collaborations and exchanges within our country. Additionally, the fact they belong to different professional levels, will also promote cooperations. more advanced can support students who has just recently started interest to the Astronomy and Astrophysics.

For all of the above reasons, we reiterate our strong support for this initiative.

Best regards

Dr. Jorge Martínez Téllez  
e-mail: martinez@uis.edu.co  
Director Physics School  
Industrial University of Santander  
Bucaramanga - Colombia





**Facultad de Ciencias Naturales y Exactas**  
**Departamento de Física**

Santiago de Cali - Colombia, April 29th 2013

**Dear Sirs**  
**Travel Program Selection Committee**  
**German Academic Exchange Service (DAAD)**

**Subject:** Support letter for the Winter School in Astronomy and Astrophysics

Hereby, we would like to manifest our deepest enthusiasm and unrestricted support to the initiative **Winter School in Astronomy and Astrophysics**. We believe that this is a very innovative initiative that will link to our advanced students of physics with internationally recognized German professionals in the area of Astronomy and Astrophysics. Clearly, our students and young researchers will have the opportunity to be exposed to a level of world-class research environment and high professionalism. Also we want to express our support to the idea that a group of students, coming from several good universities in Colombia, could participate in this experience.

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For all of the above reasons, we reiterate our strong support for this initiative.

**Luis Norberto Granda Velásquez**  
**Professor of Physics and Head of Department**





**Uptc**  
Universidad Pedagógica y  
Tecnológica de Colombia

Edificando  
futuro

Tunja – Colombia, April 25th 2013

**Dear Sirs**  
**Travel Program Selection Committee**  
**German Academic Exchange Service (DAAD)**

**Subject:** Support letter for the Winter School in Astronomy and Astrophysics

With our Respects:

An institutional policy of the *Universidad Pedagógica y Tecnológica de Colombia*, is to facilitate academic experiences for our students, in order to strengthen their learning process. Hereby we present **CAMILO ANDRES NAIZAQUE & LINA YULIETH CASTIBLANCO**, who are currently ninth semester physics program students, members of the research group in Astrophysics, who expect with enthusiasm participate in the Winter School of Astronomy and Astrophysics, that will be in December in Germany.

In Colombia it is not easy to access this type of pure science research experiences of Astrophysics, clearly our students and young researchers will have the opportunity to be exposed to a level of world-class research environment and high professionalism. Also on the other hand, is a pleasure that this experience can be applied to all group of students coming from several good universities of Colombia, since for each student who could go to this event would be a valuable contribution to the development of research in the country as a possible interdisciplinary collaboration that is one of the ways the country can progress in research, by the way this type of group visit, will create friendship relations among students from different parts of Colombia.

We look to your favorable opinion of our request.

Sincerely,

**SEGUNDO AGUSTIN MARTINEZ OVALLE Ph D.**  
Head of Physics Program  
*Universidad Pedagógica y Tecnológica de Colombia*



[www.uptc.edu.co](http://www.uptc.edu.co)

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