

**Specific Cooperation Agreement on**  
**JOINT SUPERVISION OF DOCTORAL THESES IN ASTROPHYSICS**  
**between**  
**Universidad Nacional de San Martín (UNSAM) and**  
**Karlsruhe Institute of Technology (KIT)**

**Preamble**

This specific agreement between UNSAM, whose address is Yapeyú 2068, CP 1650, San Martín, Provincia de Buenos Aires, Argentina, and is represented by its Rector Doctor Carlos Rafael Ruta, and KIT, whose address is Kaiserstraße 12, 76131 Karlsruhe, Federal Republic of Germany and is represented by its President Prof. Dr. Holger Hanselka, defines the rules and regulations for the double doctoral degree program in Astrophysics (DDAp) between the KIT and UNSAM.

Whereas:

- This specific agreement is preceded by the Framework Agreement and the Memorandum of Understanding both signed on May 9 2011, by the Rector of UNSAM and the President of KIT, aimed at establishing collaborative ties in both academic and scientific fields for the generation and execution of joint projects and exchanges of scholars, researchers and students.
- That both institutions have been developing joint research activities in the last few years in Astrophysics with outstanding results.
- That the accumulated experience in this area provides for the necessary foundations to develop collaborative initiatives to train human resources at the doctoral level.
- That these initiatives are in accordance with the regulations of the bi-national Program of the Centro Universitario Argentino Alemán (CUAA) / Deutsch-Argentinisches Hochschulzentrum (DAHZ) to strengthen Argentinean and German inter-universities networks.

Therefore, both institutions agree to the following articles:

**Article 1 - General Rules**

The joint supervision of doctoral theses in Astrophysics (co-tutoring) will proceed following the guidelines of the (in their respective native tongues):

- a) *Promotionsordnung des Karlsruher Instituts für Technology (KIT) für die Fakultät für Physik,*
- b) *Gesetz über die Hochschulen in Baden-Württemberg - Landeshochschulgesetz (LHG) and*
- c) *Plan de Estudios del Doctorado en Astrofísica.*

## **Article 2 - Admission**

Candidates for the DDAP have to apply as doctoral candidates at both universities and must be accepted as such by both universities. It is foreseen an initial admission of two candidates from KIT and two from UNSAM. Candidates applying for the DDAP who obtained their degree at the partner university or at another University in a foreign country will submit their records to judge the equivalence of their degrees. They may be required to obtain additional qualifications, e.g. courses or examinations, which have to be passed during the duration of the doctoral program. The successful candidate will work on a research topic for the joint thesis with a supervisor from each university; for each individual doctoral candidate an agreement will be signed by the heads of KIT and UNSAM, including a description of the work plan and the joint research topic of the candidate, as well as the travel plans, the supervisors and the institutes where the work will take place (individual co-supervising agreement).

## **Article 3 - Duration and exchange**

The standard duration of a doctoral research project within the DDAP is 3 (three) years. Candidates of the DDAP have to spend at least one year in Argentina and one year in Germany. The corresponding research visits can be subdivided in practical intervals as required, e.g. two times six months.

## **Article 4 – Educational requirements**

According to the regulations of UNSAM mentioned in Article 1 candidates have to gather 20 credit points mainly by taking specialized classes (1 credit point = 24 hours workload). The course program is defined by the doctoral Academic Committee as defined in the regulations of UNSAM, which also assigns the credit points. UNSAM will invite two professors / researchers from KIT to become members of the above mentioned Committee.

The classes defined in the course program for each candidate have two goals. First, there are classes for a deeper knowledge in physics and astrophysics. Second, some classes are not strictly related to the research topic of the thesis to broaden the areas of competence, and are thus aiming at a balanced and better education.

## **Article 5 – Special classes**

Lecturers from both sides will give block courses at the other university typically of two-week duration. The candidates are encouraged to attend these lectures, and will receive 2 credit points for the successful participation of a block course of two weeks duration.

Candidates of the DDAP are encouraged to become members of the graduate school KSETA at KIT and take part in the lectures of KSETA. They will receive at least 1 (one) credit point for each lecture, or more, depending on the workload of each lecture.

## **Article 6 – Language**

One of the main objectives of the DDPa is to strengthen the intercultural competence of all participants. For this reason, the attendance to at least two language courses is obligatory for each candidate, unless they can give proof of proficiency in German and Spanish. Candidates will receive credit points for the successful participation in the language courses. KIT and UNSAM will offer language courses in both institutions. As a general rule, candidates should take the first language course in their home country and the second course at the receiving university.

Nonetheless, the international scientific language in physics is English. Therefore, the thesis has to be written in English, with one abstract in English, one abstract in German, and one abstract in Spanish.

## **Article 7 – Cultural exchange and Economic Support**

Participants of the DDAP will receive financial help to cover travel costs to the other country and costs for additional living expenses abroad. Both universities shall make efforts to seek support by CUA/DAHZ and other suitable sources.

During their exchange period, candidates shall receive administrative help by the corresponding university organizations. Furthermore, they will receive support in daily live by other doctoral candidates of the receiving country. Reciprocally, when at their home university, candidates are encouraged to provide support to exchange candidates.

In addition to the language courses, it is recommended to broaden the education by taking classes related to the culture of the other country (e.g., history, literature, or philosophy).

## **Article 8 – Examination**

### **1. Thesis**

The thesis will be submitted to both supervisors prior to final submission, who will assess it for suitability and quality. To comply with the regulations of both institutions the thesis will be evaluated by both supervisors (for KIT) and a separate thesis tribunal (for UNSAM) consisting of three examiners, both supervisors excluded, appointed and approved by UNSAM. Both supervisors and the thesis tribunal will submit a written recommendation that the thesis is passed or failed, and if passed with which grade as stipulated by the regulations mentioned in Article 1.

### **2. Oral examination**

Upon acceptance of the thesis, the candidate will undergo one single oral examination, which can take place either at KIT or at UNSAM, or at both places, simultaneously by video conference. To comply with the regulations of both institutions the examination board will consist of two juries, comprising an equal number of examiners. The oral examination consists of an oral presentation of the thesis followed by questions by the members of the examination board. These questions can

address the work of the thesis or any other topics related to physics. The language of the final examination is English, unless all participants agree upon another language.

### **3. Final grading**

Upon completion of the oral examination the examination board decides whether the candidate has passed or failed the examination and determines a final grade by taking into consideration the grades for the thesis and the oral examination. The grade of the thesis and the grade of the oral examination as well as the final grade will be determined by using the grading systems of both institutions stipulated in the regulations mentioned in Article 1. Thus the final grade may be different on the German and the Argentinean certificate.

#### **Article 9 – Degree**

Upon successful completion of the examination requirements each university will award the doctoral degree / title according to their rules, but making reference to the degree issued by the other university. In particular, the certificates have to state that the degree has been obtained in a double doctoral degree program. The German certificate will contain the following remark: "This diploma is valid only in connection with the diploma of the Universidad Nacional de San Martín (UNSAM), Provincia de Buenos Aires, Argentina". The degree may be used in both the Argentinean and the German form, but only in one form at any given time. The names of both universities can be added in parentheses.

#### **Article 10 - Terms of reference**

The validity of this agreement starts on the date of last signature for a three-year period, which will be automatically extended by equal periods of time. If any of the parties (KIT or UNSAM) wishes to cancel the agreement, it must notify to the counterpart six months in advance. All acquired commitments must be fulfilled prior to cancellation.

#### **Article 11 - Resolution of controversies**

Both parties explicitly agree that any controversy that may arise during the period of validity of this agreement will be friendly solved. Otherwise, they will resort to the competent jurisdiction to sort out the differences.

This agreement was signed on October 29, 2013 by representatives of UNSAM and KIT.