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**Agreement of joint thesis supervision**  
**between**  
**Messina University**  
**and**  
**Lebanese University**

**Between**

Messina University (Università degli Studi di Messina), Piazza Pugliatti 1, 98121 Messina (Italy),  
hereinafter referred to as "UNIME",  
represented by Prof. Pietro Navarra, Rector,

**and**

The Lebanese University– Lebanon, BP 6573/14 Badaro, Museum, Beirut-Lebanon,  
hereinafter referred to as "LU"  
represented by Prof. Fouad Ayoub, Rector,

jointly referred to as the '*the partner institutions*'

**and**

Ms. Israa Medlej,  
hereinafter referred to as 'the doctoral student',

in which the afore mentioned parties are jointly referred to as '*the parties*',

Within the framework cooperation agreement between *the partner institutions* (prot. 74458, date 28/11/2016 of UNIME) and seen the art. 27 of the Regulation concerning Research Doctorate course issued with the Rector's Decree n. 1015/2016:

- conforming to the regulations in force in Lebanon and Italy;
- the art. 4 of the Italian Law n. 210 of 03/07/1998, that provides for the Universities' autonomy in setting up PhD courses within Universities' governmental, educational and scientific autonomy, as modified by the Law n. 240 of 30/12/2010;
- the Italian Ministry of Education, University and Research Regulation concerning PhD programmes, issued with D.M. n. 45 of 08/02/2013;
- the University of Messina Regulation concerning Research Doctorate course issued with the Rector's Decree n. 1015/2016;
- In consideration of the decree 74 of 22 February 2007 on the establishment of the Doctoral School of Sciences and Technology at the Lebanese University

and in due observance of the readiness on the part of Prof. Giovanni Finocchio (UNIME) and Prof. Fouad El Haj Hassan (LU) to assume supervision of the joint thesis sponsorship as thesis advisors and Dr. Abbass Hamadeh as thesis co-director;

**The following has been agreed:**

**Article 1 – JOINT THESIS SUPERVISION**

The partner institutions hereby agree that they shall assume joint responsibility for the supervision of the doctoral student's doctoral research project, the organisation of the doctoral examination and the award of a doctoral degree.

Doctoral student's personal details:

Surname and first name: Medlej, Israa

Official address (for correspondence): V.le F. Stagno d'Alcontres, 31, S. Agata, 98166 Messina (presso Dipartimento di Scienze Matematiche e Informatiche, Scienze Fisiche e Scienze della Terra).

Date of birth: 18/02/1993

Place of birth: Baalbeck

Nationality: Lebanese

Registered as PhD student at LU, first year A.A. 2016-2017.

**Article 2 – SUPERVISION OF THE DOCTORAL STUDENT**

The doctoral student shall be supervised by the following thesis advisors:

- At UNIME:
  - Name: Prof. Giovanni Finocchio
  - Department: Department of Mathematical and Computer Sciences, Physical Sciences and Earth Sciences,
  - Position: Assistant Professor
- At the LU:
  - Name: Prof. Fouad El Haj Hassan
  - Faculty or Department: Plateforme de recherche et d'analyses en sciences de l'environnement PRASE
  - Position: Full Professor
  
  - Name: Dr. Abbass Hamadeh (thesis co-director)
  - Faculty or Department: Department of Physics Faculty of sciences (LU)
  - Position: Assistant Professor

The two thesis advisors undertake to fully assume their responsibilities as the doctoral student's supervisors, which include holding consultations when required so as to be able to assess the progress being made in the research project.

- At the Doctoral School of Physics of UNIME:
  - The PhD student has to follow the rules as described in the Research Doctorate course issued with the Rector's Decree n. 1015/2016, with a particular focus the Art. 20 "Rights and obligations". The electronic means are also permitted for the evaluation of the activities of each year.
  - The PhD student should follow the official activities of the PhD program during her staying at UNIME as provided by the coordinator of the PhD program in Physics (Lecturers, Tutorials, and the research day that is organized every year within the activities of the PhD program in Physics).
- At the Doctoral School of Science and Technology of LU:
  - A thesis is 180 credits for the three-year doctorate,
  - The report and the follow-up of the thesis correspond to 140 credits,
  - For the scientific training as regards the activities organized within the Doctoral School of LU or UCO are allocated to 40 credits,

- In these 40 credits between 12 and 15 credits are shaped during equivalents of two or three modules in the scientific fields.

#### Article 3 – ADMISSION TO DOCTORAL STUDIES – DOCTORAL THESIS SUBJECT

The doctoral student has been admitted to the doctoral program by both partner institutions:

- At UNIME:
  - Admission to the doctoral program in Physics Cycle 32<sup>nd</sup> - First Academic year
  - The program lasts three years.
  - On the following date: October 1<sup>st</sup>, 2016 up to September 30<sup>th</sup>, 2019
  - A thesis must be finished until the end of the doctorate course scheduled for November 2019.
- At the LU:
  - Admission to the doctoral program “in Fundamental Physics”
  - The program lasts three years.

The subject of the doctoral thesis is:  
Magnetic Skyrmion based memristors

#### Article 4 – ENROLMENT AND STUDENT SERVICE FEE

At LU the student has enrolled as 3 years PhD student, in the Program in Fundamental Physics (Academic year 2016/2017) First year.

At UNIME, the student will be enrolled in the PhD Program in Physics Cycle n° 32<sup>nd</sup> First Academic year. The enrolment fees will be paid only at LU and she will be exempted from the payment of fees at the Messina University.

#### Article 5 – AWARD OF THE DEGREE

If the doctoral student has passed the joint doctoral examination successfully, she shall be simultaneously and separately awarded a joint degree by the partner institutions conferring the following degrees which are given alternate, but not cumulated.

- Doctor in science : Fundamental Physics
- Dottore di ricerca in Fisica (Physics)

#### Article 6 – INSURANCE COVER

LU will guarantee Insurance coverage according to the institutional rules and the legislation in force.

UNIME will guarantee Insurance coverage according to the institutional rules and the Italian legislation in force.

In Italy, In addition to that, the doctoral student takes all necessary steps in order to arrange health insurance, insurance cover against physical injuries and third party liability whilst performing his or her duties within the framework of the doctoral research project at the two partner institutions, in accordance with the national and institutional rules and regulations in force.

#### Article 7 – RESEARCH AT PARTNER INSTITUTION

The doctoral student shall spend the following alternate or consecutive research periods at both partner institutions. The period of the joint research activities will be organized as follow:

- At UNIME: 16 months, 5 month the first and second year and six months the third year. The time scheduled is from April to June and from mid September to mid December or alternatively the second and/or the third year from February to July. At the beginning of the year, the supervisor at UNIME will communicate (by mid of January) the scheduled period of

staying for that specific academic year to the coordinator of the PhD program and the competent offices.

At LU: 15 months

Starting date of this agreement: Academic year 2016-2017

At UNIME at the end of the first and second year, the activities of the PhD student will be evaluated according to the PhD program rule including a short presentation, and the admission to the next year follow an evaluation of the activities performed. The presentation can be presented by electronic means (i.e. Skype, etc). The examination of the third year will be performed with the presence of the PhD student in front of the teacher college of the Doctorate School in Physics of Messina University, in order to obtain the admission to the final international exams.

#### Article 8 – FINANCIAL PROVISIONS

The PhD Candidate benefits a scholarship from The Islamic Center Association for Guidance and Higher Education (CIOES) with an amount of 7000 Euros per year.

The transfer will be effective upon presentation of the certificate of registration in first year and upon presentation of the progress report in second and third year.

UNIME will support the housing expenses by supporting the access to one of the residence managed by ERSU.

#### Article 9 – THESIS DEFENSE COMMITTEE

The thesis defense committee set up for the evaluation (doctoral thesis and the defense of the thesis) shall be composed by mutual consent between the partner institutions, in accordance with the regulations in force at the institutions following the recommendations of the two Deans (or equivalents). The Examination Board shall comprise six members including the two thesis advisors that doesn't evaluate. Of the four members that take active part in the evaluation, one will be selected within the professors at UNIME, one within the professors at LU and two international recognized academic experts in the topic of the thesis. The final international examination will be performed with the presence of the PhD student at Messina University and with the video-meeting (Skype, hangout,...) support with the foreign teachers, in order to obtain the title of PhD in Physics of Messina University.

LU: The Dean names two reviewers for the evaluation of the thesis.

UNIME: According to the new Italian rules, before the final examination, the thesis will be evaluated by two reviewers that are professors that don't participate at the final evaluation.

The two institutions, by means of the Deans, exchange any piece of information and all documents relevant to the organization of the joint sponsorship described in the present agreement.

#### Article 10 – DOCTORAL THESIS DEFENSE

The public defense of the doctoral thesis shall take place at one of the partner institutions (in principle this is the home institution) but is recognised by all institutions involved. In the present case the public defense will take place at UNIME not later than April 2020 according to the Italian law.

#### Article 11 – LANGUAGE

DOCTORAL THESIS:

The doctoral thesis shall be written in English.

An abstract of the doctoral thesis shall be supplied in English and Italian.

DEFENSE:

The defense of the doctoral thesis is to take place in English at UNIME and the commission activities can take place by electronic means.

The grades for thesis and defense will be assigned in compliance with the rules in force both at UNIME and LU.

Article 12 – INTELLECTUAL PROPERTY RIGHTS

Intellectual property ownership will be based on the principle of inventor owns in accordance with the respective policies of each of the partner institutions.

Therefore the protection of the research results arising from the doctoral research project, as well as any matter related to filing them, making them accessible, their publication and exploitation shall be discussed and agreed by the partner institutions and be in accordance with the national and institutional regulations in force.

Article 13 – COMMENCEMENT AND VALIDITY OF THE AGREEMENT

The present agreement shall take effect on 1 March 2017 and expires at the end of April 2020 at the latest.

Article 14 – VALIDITY OF THE AGREEMENT AND SETTLEMENTS OF DISPUTES

The stipulations of this agreement may not conflict with the provisions of the regulations at the LU, or with the supplementary faculty regulations regarding the conferring of doctoral degree at the LU faculty where the doctoral project takes shape. The stipulations of this agreement may not conflict with the provisions of the regulations at UNIME.

Drawn up in ..... in four original copies, date of last signature: \_\_\_\_\_

**For the Lebanese University - Lebanon,**

**For the University of Messina**

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Israa Medlej  
The doctoral student

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Dr. Abbass Hamadeh  
Co-Director

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Prof. Fouad El Haj Hassan  
Thesis Advisor

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Prof. Dr. Giovanni Finocchio  
Thesis Advisor

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Prof. Fawaz El Omar, Dean of the Doctoral  
School of Sciences and Technology

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Prof. Lorenzo Torrisi  
PhD Programme Coordinator

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Prof. Fouad Ayoub, Rector  
Rector LU Rector

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Prof. Pietro Navarra