









Erasmus Mundus Joint Master in Astrophysics and Space Science - MASS (Project No. 101050044 ERASMUS-EDU-2021 PEX-EMJM-MOB)



CONSORTIUM AGREEMENT











LIST OF ACRONYMS

MASS	MASTER IN ASTROPHYSICS AND SPACE SCIENCE
EMJM	ERASMUS MUNDUS JOINT MASTER
EACEA	EUCATION, AUDIOVISUAL AND CULTURE EXECUTIVE AGENCY
UNITOV	UNIVERSITY OF ROME TOR VERGATA
UBG	UNIVERSITET U BEOGRADU
UB	UNIVERSITAET BREMEN
UCA	THE UNIVERSITÉ CÔTE D'AZUR
CC	CONSORTIUM COORDINATOR
EB	EXECUTIVE BOARD
SC	SELECTION COMMITTEE
TC	TEACHING COMMITTEE
QEC	QUALITY EVALUATION COMMITTEE
EAP	EXTERNAL ADVISORY PANEL
PO	PROJECT OFFICE

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1. Background

The aim of this Consortium Agreement is to establish the frame for the implementation of the Erasmus Mundus Joint Master (EMJM) programme in *Astrophysics and Space Science*, hereafter indicated as the MASS programme. The signatories of this agreement are:

The University of Rome Tor Vergata (UNITOV)
 established in Via Cracovia, 50, 00133, Roma, Italy
 represented by The Rector Prof. Orazio Schillaci,

hereafter referred to as the Coordinating Institution and a Full Partner

- The Univerzitet U Beogradu (UBG)
 established in Studentski TRG 1, Beograd 11000, Serbia
 represented by Prof. Vladan Đokić
- 3. The Universtaet Bremen (UB) established in Bibliothekstrasse 1, Bremen 28359, Germany represented by Prof. Dr. Ing. Bernd Scholz-Reiter
- The Université Côte d'Azur (UCA)
 established in Grand Chateau 28 Avenue Valrose, Nice, 06100, France
 represented by Prof. Jeanick Brisswalter,

hereafter collectively referred to as the Full Partners.

This agreement describes how the programme will be managed for the period 2022- 2028, in compliance with the Grant Agreement No 101050044--MASS signed on January 31st, 2022, by the Education, Audiovisual and Culture Executive Agency—EACEA. The University of Belgrade will participate in the implementation of the study program, starting from the academic year 2022/2023, only if the University receives a certificate of accreditation of the study program issued by the National Accreditation Body, until the beginning of the academic year.

The Full Partners agree to the following terms and conditions, including those in the Annexes, that are an integral part of this Consortium Agreement.











2. General objectives of the EMJM Programme

The present Consortium Agreement complies with the Horizon Europe strategy and the Erasmus+ programme 2021-2027 to ensure the implementation and the management of the two-year Master programme in Astrophysics and Space Science (hereafter named MASS program) selected for EU co-funding.

2.1. The Full Partners promote:

- access to a high quality, research Master Degree in the field of Astrophysics and Space Science for future scientists who can find a job either in academia, research institutes and industry;
- the cooperation between partner institutions to advertise and promote state-of-the-art research in Astrophysics, Space Science and Education;
- students' mobility among the Consortium, offering long standing experience and academic excellence in the fields covered by the MASS programme;
- the broadening of the educational offer in Astrophysics and Space Science, providing best practises available to any other interested Institutions.

The Partner Universities support the promotion and sustainability of the programme beyond the period covered by the current Grant Agreement.

3.MASS Consortium: Entry into force, duration and termination

This Consortium Agreement shall have effect from the date on which it has been signed by the Representatives of the Full Partners until October 2028. It shall continue in full force and effect until complete fulfilment of all obligations undertaken by the Full Partners with this Consortium Agreement.

The end of the Consortium Agreement shall not affect any rights or obligations of Full Partners leaving the Consortium incurred prior to the date of termination. This includes the obligation to provide all input, deliverables and documents for the period of its participation.

This Consortium Agreement may be modified by means of a written Annex approved and signed by all the Full Partners' Representatives. Whenever appropriate, EACEA shall be notified of these modifications in accordance with Article IV.3.19.3 of the Grant Agreement.











Amendments to the Annexes to this Agreement are not considered amendments to the Agreement itself. Amendments to the Annexes are adopted via a unanimous vote of the MASS Executive Board.

4.MASS Consortium: obligations and responsibilities

The Consortium Members are the Coordinating Institution and the Full Partners.

4.1. The Coordinating Institution

The University of Rome "Tor Vergata" – UNITOV is the Coordinating Institution as indicated in the Grant Agreement signed by EACEA.

The Coordinating Institution shall be responsible for:

- General coordination of MASS programme activities in strict collaboration with the Partners.
- Creation of tools shared among the Partners (evaluation forms, guidelines, project's website, etc.).
- Payment of European grants to students and scholars involved in the MASS programme.
- Signature of the MASS Student Agreement with each of the enrolled students;
- Distribution of the student participation cost to the Full Partners according to the planned budget distribution (see Article 7);
- All formal contacts with EACEA, including the submission of the reports required by the Grant Agreement signed with EACEA;
- Managing the administrative, legal and financial aspects of the Consortium on the basis of the terms of this Consortium Agreement and the Grant Agreement signed with EACEA;
- Ensuring that all the necessary arrangements and resources are available for the effective delivery and management of the Programme;
- Payments of invoices resulting from MASS programme activities, according to the planned budget, even if they are carried out in one of the Full Partner institutions. The Consortium should, however, agree on the expenses, which must be fully eligible and accountable for the MASS grant.
- Banking facilities for enrolled students and scholars/guest lecturers.
- Healthcare coverage and insurances (civil liability + repatriation insurance) exclusively for all students enrolled in the MASS programme











- Elaboration of technical reports and financial statements to the Consortium for each edition of MASS Master course
- Submission of additional supporting documents, if required by the grant agreement.

The Coordinating institution has the primary legal responsibility towards EACEA for the proper execution of this Consortium Agreement. Moreover, the Coordinating Institution shall be responsible for:

- maintaining, during the term of this Agreement and for a period of five years after its termination or expiry, full records of the Programme, including details of the students, their academic progress, awards achieved and any other necessary information;
- coordinating the issuing of transcripts and/or Diploma Supplements.

The Coordinating Institution shall ensure that each of the Full Partners is fully debriefed about any formal contacts with EACEA and receives in draft all formal reports for EACEA with a minimum of five days for reply.

The Coordinating Institution shall nominate a Consortium Coordinator. The Consortium Coordinator is responsible for drawing up technical reports and financial statements. She/he organizes and coordinates the effective management of the MASS Project between Partners in compliance with the proposed EMJM academic programme. She/he is the link between the European Commission and the Partners.

4.2. Full Partners

Full Partners are the Higher Education Institutions listed in Article 1. (Background) with an instrumental role in the implementation of the MASS Programme and actively participating in the coordination, delivery and management of the Programme.

Full Partners shall be responsible for:

- ensuring full support from their University, including all the resources, academic/administrative staff and facilities necessary to effectively deliver and manage the Programme at a local level, in particular for hosting MASS students, delivering transcripts and diplomas in case of a double/ multiple degree;
- ensuring prompt communication with the Coordinating Institution, in particular in relation to any change of circumstances or difficulties in the execution of this agreement;
- ensuring the reliability of all information communicated to the Coordinating University, in particular in relation to all financial matters;
- ensuring the availability of all relevant documentation related to the delivery and management of the Programme at a local level and











supplying this documentation in a timely manner and no later than ten workdays after any formal request, unless otherwise agreed.

Each of the Full Partners will organize the MASS Programme activities in its own institution, in particular carrying out the following actions:

- The promotion and implementation of the MASS academic programme for students, scholars and researchers from Programme Countries (also referred to as "European") and Partner Countries (also referred to as "Non-European").
- The management of the funds granted by the European Commission and transferred by the Coordinating Institution.

Each of the Full Partners shall also

- provide the students or scholars with either support and assistance or advice according to their individual needs in terms of visa application.
- provide the students with either assistance or advice for them to take the necessary steps with immigration officials in compliance with the standards.
- communicate their specific dates regarding the timeframe of the Academic Calendar before the end of January of the year preceding the relevant academic year.
- timely manage all communication concerning their activity during the term
- provide guidance to incoming participants in finding accommodation, either for students' mobility for long-term stay at the Full Partner universities or for short-term invited scholars and at summer schools.
- facilitate the successful integration of students by organising cultural integration days and providing the students with all the facilities and the learning support.

Upon a student's successful completion of the EMJM-MASS, each Full Partner shall award the graduating student, who spent at least one semester (30 ECTS credits) and was enrolled at their university, with a Double/Multiple Master Degree in the form of a legally recognized diploma and a diploma supplement in line with the national regulations. Students will remain enrolled at a Full Partner's university for either the study period spent at that university or the whole duration of the MASS Master course as required by the local regulations for the award of a degree. Students will remain enrolled at the Coordinating Institution for the whole duration of their studies.











In the case of the installation of a joint degree in the future, the Full Partners shall award the graduating student with a joint, legally recognized diploma and a joint diploma supplement.

Complaint handling: after adequate warning, the Full Partners may report to the Consortium Coordinator and to the relevant Governance bodies of the Consortium (see Annex VI) any serious problem with the students or the visiting scholars/guest lecturers receiving an Erasmus Mundus scholarship (no-show of a student candidate, student drop-out, etc.) as regulated by the applicable Data Protection Law and on the basis of the required Data Protection Agreements (Annexes IX and X, to be signed separately) between the parties.

Each of the Full Partners Institution shall nominate a Local Academic Coordinator who shall be a member of each Full Partner's academic staff who represent their University in the Consortium. For each of the Full Partners, the Local Academic Coordinator, named in Annex VI, shall organize and coordinate with her/his local collaborator(s) the activities and the organisation of the MASS programme in the Partner institution.

4.3. Third Parties

The participation to the Consortium of Third Parties is considered an important complement to the Mass Programme activities. Third Parties may be part of the learning-teaching process, although they are not formally members of the Consortium. Third Parties can be represented in the Governance bodies of the Consortium. The list of Third Parties, given in the Annex VII, can be modified during the period of the programme by the Consortium. Their participation in the programme may be supported by the programme budget.

Third Parties are strongly encouraged to

- propose internships for MASS students;
- host MASS students in their respective laboratories (academic or industrial) for their research work in the Semester 4 (Master thesis). The Third Party institutions reserve the right to reject a student's application for practical training inside their institution;
- favour the master promotion around the world (Education & Career Exhibitions, International Education Fairs, etc.).

Third Party Members may be invited to participate

to the MASS program with the responsibility of some teaching units











to the MASS Winter and Summer Schools, to present their specific R&D activities

All Partners must be notified of any changes to Annexes. Amendments to Annexes require the consent of the Partner whose own work, time for performance, costs, liability, intellectual property rights or other legitimate interests would be severely affected.

4.4. Admission of new Partners

While this Agreement is in force, a new Associated Partner may be admitted to the Consortium upon unanimous consent of the Executive Board (see Annex VI) and upon signature of a bilateral agreement with an authorized Consortium representative.

A new Full Partner may be admitted in the Consortium only in exceptional circumstances, upon unanimous consent of the Executive Board, in accordance with the Grant Agreement and upon EACEA's approval.

4.5. Withdrawal of Consortium Members

- A Full Partner may voluntarily withdraw from the Consortium on request, following a written notice sent to the Executive Board six months in advance. A Full Partner may be forced to withdraw for a good cause -e.g. in case of a breach of this Agreement or any circumstances that would render the implementation of the Programme and programrelated activities illegal or unethical- by the vote of the Executive Board.
- An Associated Partner may withdraw thirty days after a written notice from the Associated Partner stating this intention is received by the Executive Board and the Coordinating Institution.

In case of withdrawing, Full or Associated Partner must ensure that the students are given the possibility to complete the semester or the internship as planned, to obtain the corresponding credits and, whenever applicable, the diploma issued jointly with this Partner.

4.6. Code of Conduct

The MASS Consortium shall adopt the Code of Conduct published on the MASS website. All Full Partners, Third Parties and Associated Partners shall abide by this Code of Conduct. Any change to the Code of Conduct will be approved by the EB.











5. The MASS Programme: objectives, organisation and description

5.1. Objectives

MASS aims to prepare specialists in the field of *Astrophysics and Space Science*. The overall structure of the MASS programme is a combination of courses that offer a dual astrophysics/space science education. The organization of the courses and the foreseen mobility scheme are based on a progressive learning approach, from basic modules to high specialization. In particular, the students will

- attend courses taught by highly qualified personnel, with a recognized scientific expertise in the field;
- acquire the skills needed to analyse and interpret scientific data of the future space-borne and ground-based experiments
- learn to design, develop and use the next generation of scientific instrumentation.
- be prepared to continue their formation at Ph.D. level, as well as to work on R&D sectors of the job market

5.2. Number of students

The total number of scholarships supported by the Erasmus+ Programme in the four editions of the MASS programme is up to 84. Each edition has up to 30 students, depending on the additional scholarships generated by the Consortium. Self-funding MASS students can be at most 9 per edition.

5.3. Duration and Mobility

The MASS programme lasts two years and is given in English. The MASS teaching activities start every year in September at the Coordinating Institution, where students attend a "Welcome week" with presentations of the Consortium offers and opportunities. The programme will continue according to the following mobility scheme:

- Semester 1 is spent in Rome (30 ECTS)
- Semester 2 is spent either in Belgrade, or in Bremen, or in Nice (30 ECTS)
- Semester 3 is spent either in Belgrade, or in Bremen, or in Nice, or in Rome (30 ECTS)
- Semester 4 is dedicated to the Thesis work (30 ECTS) and is spent either in Belgrade, or in Bremen, or in Nice, or in Rome.











The mobility plan will take into account the 'Mobility Rule': minimum of two semesters in two Full Partner countries. These two countries must be different from the country of residence of the student at the recruitment stage.

Winter and Summer Schools are an integral part of the teaching and mobility plan (see Annex V).

The Master thesis defences are taking place as described in Article 9. Every edition meets at the graduation ceremony in late September in Rome.

5.4. Academic programme

The description of the academic programme and the time table of mandatory courses is given in the Annex I.

The description of each course will be prepared by the teaching professors and will be available on the MASS website (www.master-mass.eu).

Modifications to the programme must be accepted by the MASS Executive Board.

5.5. Degree-Awarding

A double/multiple Master Degree will be awarded by the Consortium Full Partners according to the conditions set out in Article 4.2. The MASS Consortium has the goal of delivering a Joint Master Degree in the future, with a joint diploma supplement detailing the curriculum and the mobility of the MASS students. If the delivery of a Joint Diploma is legally not possible, the Consortium will provide multiple degrees to the graduates. The call for applications to MASS will clearly indicate what kind of degree the Consortium will deliver.

5.6. Application

The Master Course is open to outstanding European and non-European (third country) students with a BSc (or higher) equivalent diploma in disciplines related to the MASS Programme. The candidates apply to the MASS programme as indicated in the regularly updated MASS website (www.master-mass.eu). The requirements for students applying to MASS and the evaluation criteria are defined in Annex IV. All candidates must fulfil the admission criteria according to the regulations as well as the admission procedures, if applicable, of each Full Partner where they are going to spend a semester of study.











The Consortium nominates, among Professors belonging to the Full Partner Universities, a Selection Committee that will be responsible for the selection and the admission procedures.

The resulting merit ranking is uploaded to the EACEA site. Official letters of admission are sent to the selected students together with all the necessary information for starting their VISA application.

6. Quality assurance

The MASS Consortium establishes a quality assurance process based on both an internal and an external basis. In case a joint degree will be installed, the goal is a joint accreditation of the program according to the European Approach.

6.1. Internal quality assessment

The Full Partners shall be individually responsible for the quality of their education, according to the principles, rules and procedures established by their national regulation. The Partners shall maintain the Quality Assurance conditions for their participation in the MASS programme. This includes undergoing accreditation, inspection, reporting, quality controls required by the Partner's national legislation.

Full Partners have in place internal evaluation procedures for their teaching staff (annual job performance, reports, student questionnaire, and scientific output evaluation). In addition, at the end of each term, on the basis of a dedicated, online, anonymized questionnaire, students have to assess their satisfaction on the MASS programme implementation.

The Winter and Summer Schools are evaluated independently at the end of the meetings.

At the Consortium level, the Quality Evaluation Committee (see Annex VI) will provide a general self-assessment based on internal evaluations, conducted by the teaching MASS members and student representatives, to review and follow up some performance indicators: professional positions after graduation, number of students continuing PhD studies, evolution towards a sustainable Master Course, academic standard of scholars applying for mobility.

6.2. External quality assessment

To guarantee an external quality assurance, the MASS Consortium appoints well established scientists as members of the External Advisory











Panel (see Annex VI) proposed by the Executive Board. The members are selected from other educational institutions and leading Astrophysics and Space Science university programmes. The funds for this External Advisory Panel are included in the EMJM participation costs. The assessment outcomes are communicated to the Consortium. As a result of such consultation, the Executive Board will propose specific actions to further improve on the positive outcomes and to correct criticisms. These actions will be implemented at the earliest, and possibly before the selection of a new edition.

7. Funding distribution and use

The Executive Agency EACEA (Education, Audiovisual and Culture Executive Agency) acting under powers delegated from the European Commission, is funding the Consortium on the date given in the grant agreement. The funds are paid to the Coordinating Institution, and can be summarized as follows:

- Grants: scholarships within the Erasmus+ programme are allocated and paid directly to students effectively involved in the MASS mobility programme.
- The participation costs are used to pay any costs related to the programme and compulsory mobility (including tuition fees, full medical insurance and cultural integration) and to the standards of excellence set by the EMJM selection and student cultural integration.

UBG, UB and UCA shall receive from the Coordinating Institution a fixed amount preliminarly set to 2,000 € per locally enrolled student per edition (estimated sum 32,000 € per edition) as a contribution to the tuition fees and the running costs related to the MASS programme, as defined in the previous paragraph, and an additional amount preliminarly set to 1,200 € as a contribution to the cost of the tutorships (see Table A, Pos. 2-4,8).

UBG, UB and UCA will receive 5,500 € for each edition (paid in 2022, 2023, 2024 and 2025) to cover Partner and Associated staff mobility (selection, Master Thesis Defence, consortium meetings, etc.) and participation in the Winter and Summer Schools (see Table A: Poss. 17, 18, and 19) and 6,000€ for each edition to cover the expenses for the visiting scholars (Table A: Pos. 16).

Bank account information: The Coordinating Institution shall transfer the funds to the following bank account:











- The University of Belgrade: the bank account in the National Bank of Serbia with the bank account in the National Bank of Serbia with IBAN RS3584000000130079068 and BIC NBSRRSBGXXX;
- The University of Bremen: The University of Bremen: the bank account in the Bank "Deutsche Bundesbank" with IBAN DE21 2500 0000 0025 1015 44 and BIC MARKDEF1250;
- The Université Côte d'Azur: the bank account is the Bank TRESOR PUBLIC with IBAN FR76 1007 1060 0000 0010 0682 291 and BIC TRPUFRP1

8. Selection and engagement of scholars/guest lecturers

The invited scholars/guest lecturers come mainly from the Full Partners, but they might also be coming from Third Parties, Associated Partners and/or institutions or universities outside the Consortium.

The main goal of the invited scholar's teaching activity is to provide the current state-of-the-art knowledge and progress in *Astrophysics and Space Science*. As both these research areas are very dynamic fields of activity, the Consortium is committed to keeping up with the newest trends also through the scholars' support. The selection criteria will be mainly based on the scientific achievements made in this field and on the quality of the proposed course and of the teaching materials.

9. Master thesis

Projects for Master Thesis may be proposed by all Partners (including Associated Partners). The number of proposed projects for each partner are defined by the MASS Governing Bodies (see Annex VI) on the basis of its feasibility, ethical aspects and concordance with the objectives and learning outcomes of the MASS Programme. The Thesis Work will be carried out by the student during the Master Programme and it will be jointly supervised by two academics belonging to different Full Partner Universities, and if applicable by one representative of the Associated Partners.

In the case the Consortium will be able to deliver a Double/Multiple degree, the defences of the Master Thesis will take place in the Full Partner University hosting the student for Semester 4. The composition of the defence committee and the rules for evaluating the thesis work will comply with the regulations of the local university.











In the case the Consortium will be able to deliver a Joint degree in the future, the defences of the Master Thesis will take place in the Full Partner University hosting the student for Semester 4, in accordance with the national regulations. The composition of the defence committee and the rules for evaluating the thesis work will be defined by the Consortium in the respect of national regulations and will be set out in a dedicated annex to the Consortium Agreement.

10. Promotion and dissemination of the MASS Programme

The MASS website (www.master-mass.eu) provides all information about the Master study programme: admission requirements, information about funding and scholarships, objectives of the master, detailed contents of each course, evaluation criteria, etc.

The non-educational actors also play an important role in the Master Programme implementation. The programme will foster the interactions with non-educational (industrial) partners.

The use of the existing networks of scientific collaborations will contribute to the MASS promotion. Advertisement at the national and international level will also insure the selection and recruitment of the best students worldwide.

11. Sustainability

- The participation to the MASS management and evaluation has the ambitious goal to provide a sustainable model that will ensure the continuity of the program also beyond 2028.
- MASS will be presented by all Partners to industries/institutions active in the field of Space Science and Astrophysics to construct positive relations with non-educational actors.
- Additional financial support will be actively investigated to increase the number of scholarships to the MASS programme. The Executive Board defines the sources of possible support and the strategy to solicit them.

12. Confidentiality and Intellectual property

12.1.Confidentiality











All data and other documents and information supplied in writing by any Partner institution (the "Disclosing Party") to another Partner institution (the "Receiving Party") under this Agreement and marked as "Confidential Information" (hereinafter referred to as "Confidential Information") shall be treated as confidential, both during the performance of this Agreement and for an indefinite period thereafter. Full Partners shall each individually confirm that strict confidentiality will be observed in all communications relating to portable or potentially commercially valuable intellectual property created within the Programme. In this respect, Full Partners agree that no disclosures will be made to third parties without permission of the appropriate authorities/person. This restriction shall continue to apply for ten years after the expiration or termination of this Agreement, but shall cease to apply to secrets or information which come into the public domain through no fault of the party concerned.

12.2.Intellectual Property

The ownership and/or control of intellectual property used or generated in connection with MASS shall apply as follows:

- If generated by the student, it is subjected to the rules of the institution where the student was registered at the time the intellectual property was created:
- If generated by staff, it is subjected to the rules of the employing institution:
- If generated jointly between students and/or staff of two institutions, the institutions shall agree which of them shall manage the intellectual property and for this purpose shall ensure that full assignments of the intellectual property are obtained, if and to the extent that it is legally possible.

13. Processing personal data

UNITOV, UB, UCA shall cooperate in order to fulfil legal obligations arising under the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 (General Data Protection Regulation-GDPR) on the protection of natural persons with regard to the processing of personal data and on the free movement of such data within the scope of the performance and administration of the MASS Project and of this Consortium Agreement.

The processing activities within the MASS Project are considered to be carried out by UNITOV, UB, UCA as joint controllers according to Art. 26











GDPR, since they are jointly responsible for particular processing activities (e.g. joint databases, joint selections etc.). UNITOV, UB, UCA will have to conclude a Joint Controllership Agreement (Annex IX) before any data processing or data sharing takes place.

UNITOV, UB, UCA shall conclude a Data Transfer Agreement (Annex X) with UBG, according to Chapter V GDPR, before any data processing or data sharing takes place.

14. Liability

The Consortium shall be responsible for the delivery of the Programme, in accordance with the EACEA's general and financial regulations. In particular, all Full Partners shall be jointly and separately liable for ensuring compliance with the terms of the Grant Agreement (Article V.3.33.2 of the Grant Agreement).

Each Full Partner shall release the other Full Partners from all civil liability arising from loss, damage or cost, liability, litigation, expenses, injury to the person or injury resulting in death or as a result of the performance of this Agreement, unless such loss, damage or cost, liability, litigation, expenses, injury to the person or injury resulting in death is due to gross negligence or deliberate omission or wrongful act on the part of the other Full Partner or its staff.

No Full Partner shall be responsible to any other Party for any indirect or consequential loss or similar damage such as, but not limited to, loss of profit, loss of revenue or loss of contracts, provided such damage was not caused by a willful act or by a breach of confidentiality.

Each Full Partner shall be solely liable toward the other Partners and towards third parties for loss, destruction, damage or injury resulting from its own actions.

Each Full Partner shall be solely liable towards the Coordinating Institution for any breach or non-compliance. If the Coordinating Institution has to pay any damages or penalties to the European Commission for such breach or non-compliance by a Full Partner, the Coordinating Institution shall be entitled to full reimbursement from the said Partner.

Each Full Partner shall be fully responsible for the performance of any part of its share of the Consortium Agreement and the requirements of Insurance and Social Security for its personnel, involved herein.











15. Applicable law and Competent Court

This Consortium Agreement shall refer to the Belgian substantive law. The settlement of any difference or conflict arising from or in connection with this Consortium Agreement shall be attempted by an amicable effort from the Full Partners.

The MASS student is bound to the rules and regulations from the Full Partner institutions at which she/he is enrolled.











The present Agreement shall be signed in four originals by the legal representatives, defined in the preamble of this document. The legal representatives bear the responsibility toward the Consortium for the validity of their signatures. Each Partner shall keep one original for its own records. Every amendment to this Agreement shall be signed in four originals by each Full Partner's legal representative for endorsement. Each Full Partner shall retain one original of every Full Partner's endorsement. The original endorsement shall be attached to each original of the present Agreement.











UNIVERSITÀ DEGLI STUDI DI ROMA "TOR VERGATA" (Coordinating Institution)

by

Prof. C	razio	Schillaci
Rector		

[a-	ORAZIO SCHILLACI 21.06.2022 08:45:48 GMT+00:00				

Date:











UNIVERSITET U BEOGRADU (Full Partner)

by	THINK THE TELL
Prof. Vlad	an Dolde
//	RELORIN
Place:	BELGENOE 04 JUL 2022
Dute	**************************************

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University of Bremen, Germany (Full Partner)

by

Prof. Dr.-Ing. Bernd Scholz-Reiter Rector

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Place:		Brem	in		 	
Date:	2	2.0	6.20	22	 	













UNIVERSITÉ CÔTE D'AZUR (Full Partner)

by

Prof. Jeanick Brisswalter

President

Place: Nico, Franco.

Date: 24/06/2022

Université Côte d'Azur

Le Président

Jeanick BRISSWALTER













16. List of Annexes

Annex I Structure of the MASS courses (Training Programme + Mobility

Scheme)

Annex II Initial budget prevision

Annex III Joint Assessment Methods of Students' Performance

Annex IV Student application requirements and selection procedures

Annex V Student support activities

Annex VI Governing Bodies of the MASS Consortium

Annex VII List of the Third Parties

Annex VIII Template of Student Agreement

Annex IX Joint Controllership Agreement (to be signed separately)

Annex X Data Transfer Agreement (to be signed separately)

Annex XI List of Compulsory and Elective Course Modules











<u>Annex I: Structure of the MASS course modules</u> (<u>Training Programme + Mobility Scheme</u>)

Training programme (ECTS)

	Module Name	S1	S2	S3	S4	Total*
1	Mathematics and Theoretical Physics	16	00	00	00	16
2	Physics of Matter and Microphysics	06	00	00	00	06
3	Experimental Physics	00	06	00	00	06
4	Astrophysics	06	18	00	00	24
5	Language (Advanced English or Italian)	02	00	00	00	02*
6	Free Choice	00	06	24	00	30
7	Master Thesis research project	00	00	06	30	36

Total

120

 $^{^{*}}$ All Partners provide language courses in both Advanced English and Local Language also in S2 and S3 (fees may apply).











Mobility scheme¹

Lecture	Rome Sem. 1 Basics	University of Choice (Rome excluded) Sem. 2 Specialization I	University of Choice Sem. 3 Specialization II	University of Choice Sem. 4 Thesis
groups				
1	Mathematical Methods (8 ECTS)			
	Advanced Quantum Mechanics (8 ECTS)			
2	Radiative Processess (6 ECTS)			
3		Experimental Gravitation (6 ECTS) OR Spectroscopy of Astrophysical Plasmas (6 ECTS) OR Astronomical Techniques in optics (6 ECTS)		
4	Modern Astrophysics (6 ECTS)	Intro to GR (9 ECTS) OR Physics of interstellar matter (6 ECTS) OR		

¹The detailed list of course modules is provided in Annex XI.











			•	
		Helio & Asteroseismology (6 ECTS)		
		Intro to Cosmology (6 ECTS)		
		OR		
		Intro to Active Galactic Nuclei (6 ECTS)		
		OR		
		Stellar atmospheres for helio & asteroseismology (4 ECTS) + Space plasmas (2 ECTS)		
		Science, astronomy and exploratory missions (3 ECTS)		
		OR		
		Computational Astrobiology (6 ECTS)		
		OR		
		Astronomical Optics (6 ECTS)		
5		Courses of choice from the list of eligible courses provided in Annex XI (6 ECTS)	choice from the	
6	Foreign Language (*) (2 ECTS)			
7			Internship for thesis (6 ECTS)	Master Thesis (30 ECTS)

(*) All Partners provide language courses in both Advanced English and Local Language also in Semester 2 and Semester 3 (fees may apply).











Annex II: Initial Budget Forecast

A preliminary budget forecast is detailed below.

1. The total income: **1 800 000 € + 2 822 400 € + 120 000 €**

2. The total Participation costs (for 30 students from Programme countries + 30 students from Partner countries + 6 students from IPA Partner countries + 18 students from NDICI partner countries) Total: 1800 000 €

3. The scholarships (33 600 € for 84 students) 2 822 400 €

4. Contribution for special needs 120 000 €

5. Position 3. will be paid directly to students by the Coordinating Institution.

Table A: Participation cost distribution (Total: 1 801 000 €)

		Cost per student		Cost per edition	Total cost
Partio	cipation costs				
1	UNITOV costs (registration, logistic cost, accommodation insurance, services)	2000€	2000 € x 25	50 000 €	200 000 €
2	UBG costs (registration, logistic cost, accommodation insurance, services)	2000 €	2000 € x 16	32 000 €	128 000 €
3	UB costs (registration, logistic cost, accommodation insurance, services)	2000 €	2000 € x 16	32 000 €	128 000 €
4	UCA costs (registration, logistic cost, accommodation insurance, services)	2000€	2000 € x 16	32 000 €	128 000 €
5	First Medical visit	70 €	70 € x 25	1 820 €	7 000 €
6	Insurance cost all taxes included	1000 €	1000 € x 25	26 000 €	100 000 €
7	Salary of 1.5 FTEs for Management Office for 6 years			66 000 € x 6 years	396 000 €
8	Tutor costs		600 € x 25	15 600 €	60 000 €
9	Winter School: student full board and travel	600€	600 € x 50	30 000 €	120 000 €
10	Winter School: invited speakers and accompanying staff (travel and subsistence)			6 000 €	24 000 €
11	Summer School: student full board and travel	1000 €	1000 € x 50	50 000 €	200 000 €











12	Summer School: invited speakers and accompanying staff (travel and subsistence)		6 000 €	24 000 €
13	Integration and graduation costs (Welcome and Information days and Final Ceremony)		12 000 €	48 000 €
Cons	ortium Management costs			
14	Development of network tools for program dissemination (e.g. participation to meetings and fairs to promote MASS)			18 000 €
15	Other: Management (advertising, mailing, material for practical work, Winter/Summer School organization, etc.), Internal Audit Cost			16 000 €
16	Visiting Scholars (8 scholars x 2 weeks x 4 editions)		24 000 €	96 000 €
17	Trips of Program Partner staff (e.g.: selection committees, Master Thesis Defenses, etc.)		8 000 €	32 000 €
18	Invited Visits of Associated Partners (e.g.: Master Thesis Defense)		4 000 €	16 000 €
19	Participation in Winter and Summer Schools (Program Partners travel and subsistence)		10 000 €	40 000 €
20	External Advisory Board meetings		3 500 €	14 000 €
21	Web-site Management, Internal Audit, other expenses		1 000 €	4 000 €
	TOTAL COSTS			1 801 000 €











<u>Annex III: Joint Assessment Methods of Students'</u> Performance

In principle, the applicable examination regulations of the Full Partner where the examination takes place shall apply. Additionally, the Full Partners agree on the evaluation procedures of the MASS master set out as follows:

- **1.** Examinations ususally take place at the end of each semester. These examinations are organized at the local level, according to the examination regulations of the Partner university executing the examination;
- **2.** Each exam is graded according to each University regulations. Grades are converted between differing grading systems according to the Exam Grades Conversion Table provided below. In the case of multiple grades in a system corresponding to a single grade in another system, the best grade will be adopted in the conversion;
- **3.** Marks are collected at the Coordinating Institution and at each Full Partner awarding a multiple degree to calculate the final grade;
- **4.** Examinations for semesters S1, S2, S3 are organized through written/oral exams, continuous assessment, reports on lab-works, reports on the projects and oral presentations;
- **5.** If the student does not pass an exam, a retake session can be organized;
- **6.** On the basis of the required Data Protection Agreements (to be signed separately) between the parties if and to the extent that this is necessary, the grades received by the students may be forwarded by the Full Partner where the exams took place to the Coordinating Institution, that in turn informs the other Full Partners. Additional discussions about results are being held during the meetings of the Teaching Committee that is in charge of the validation of the marks given to the students;
- **7.** Students have the possibility to be informed by the teaching staff about the reasons for their assessments and grades.











EXAM GRADES CONVERSION TABLE

	NOT PASS	OT PASS Sufficient				Satisfying																	
ECTS		E				D																	
Italy	< 18	18 19 20			21 21 21			22 22		22	23	23	23	23									
France	< 10	10						11			12												
Germany	5	4	3.7	3.7	3.3	3.3	3.3	3	3	3	2.7	2.7	2.7	2.7									
Serbia	5 = F < 50 points	6 = D 50 points	6 = D 50 points	6 = D 50 points	6 = D 51 points	6 = D 52 points	6 = D 53 points	6 = D 54 points	6 = D 55 points	6 = D 56 points	6 = D 57 points	6 = D 58 points	6 = D 59 points	6 = D 60 points									
					Go	od				Very good													
ECTS		С											В										
Italy	24					25	25 26				27			28			29						
France		13 14									15 16												
Germany	2.3				2			1.7							1.3								
Serbia	7 = C 61 points	7 = C 62 points	7 = C 63 points	7 = C 64 points	7 = C 65 points	7 = C 66 points	7 = C 67 points	7 = C 68 points	7 = C 69 points	7 = C 70 points	8 = B 71 points	8 = B 72 points	8 = B 73 points	8 = B 74 points	8 = B 75 points	8 = B 76 points	8 = B 77 points	8 = B 78 points	8 = B 79 points	8 = B 80 points			
					Exce	llent				With honors													
ECTS		Α										A+											
Italy		30										30 e lode											
France		17							18					19					20				
Germany		1.0										1.0											
Serbia	9 = A 81points	9 = A 82 points	9 = A 83 points	9 = A 84 points	9 = A 85 points	9 = A 86 points	9 = A 87 points	9 = A 88 points	9 = A 89 points	9 = A 90 points	10 = A+ 91 points	10 = A+ 92 points	10 = A+ 93 points	10 = A+ 94 points	10 = A+ 95 points	10 = A+ 96 points	10 = A+ 97 points	10 = A+ 98 points	10 = A+ 99 points	10 = A+ 100 points			











<u>Annex IV: Student Application Requirements and</u> Selection Procedures

Student eligibility criteria

Minimum requirements

In order for a student application for the MASS Programme to be taken into consideration, the candidate must comply with the minimum requirements with regard to administrative prerequisites, academic prerequisites and language prerequisites. All candidates must fulfil the admission criteria according to the regulations as well as the admission procedures, if applicable, of each Full Partner where they are going to spend a semester of study.

Administrative prerequisites are:

- 1. Compliance with the application calendar and deadlines;
- 2. Submission of a complete set of required application documents in English language versions (certified English translation if required).

Academic prerequisites are:

1. To hold:

- Either a Bachelor's degree from an accredited university in Astronomy, Astrophysics, Physics, Mathematics, Computing Science, Space Engineering or related fields;
- Or another recognized degree from accredited higher education institutions that certifies an equivalent amount of learning in the same fields, quantified as 3 years of university studies corresponding to at least 180 credits in the European Credit Transfer System, and that allows access to second-cycle programmes at the Master level in the higher education system within which the degree was obtained.
- Or to be expected to obtain a Bachelor's Degree in the abovementioned fields latest by the end of May of the starting year of the Masters Course.
- 2. To possess an academic transcript of records that demonstrates the fulfilment of the following minimum requirements concerning the acquired knowledge in Mathematics and Physics:
 - Mathematical Knowledge: Linear Algebra, Mathematical Analysis in one or several variables, Linear operators;
 - Physics Knowledge: Basic knowledge of classic and modern Physics, Mechanics, Thermodynamics and Electromagnetism;











Elements of Quantum Mechanics, Special Relativity and Nuclear Physics; basic knowledge of geometrical and wave Optics.

 Skills in lab. activities, experimental physics data analysis, and programming.

Language prerequisites are:

Supply one of the following proofs of English proficiency:

- Cambridge B2 First (previously known as Cambridge English: First, FCE) or higher level Cambridge certificates;
- "International English Language Testing System" (IELTS) Academic test, minimum "Band 6" and not more than 2 years old;
- Internet-based (iBT) TOEFL with minimum score 72 points and not more than 2 years old;
- TOEFL Essentials with minimum overall band score 8 and not more than 2 years old;
- UNIcert level "II";
- B2 according to the Common European Framework of Reference (CEFR);

Native English speakers are exempted from providing such a proof.

Student selection and admission

Student application, eligibility, selection, admission, and scholarship attribution shall be based on joint criteria agreed by the four Full Partners. The Full Partners have established a central application procedure at the Coordinating Institution that makes use of a joint application form. A template of the application form will be published on the Programme website (www.master-mass.eu).

Call for Applications

- 1. The Call for Applications will be launched, published on the Programme website and disseminated prior to every course edition at least three (two, for the first edition) months before the application deadline specified by this Call.
- 2. The Call will clearly state the application deadline.
- 3. The Call will clearly state the kind (multiple, double or joint) of degree awarded by the Consortium.

All the relevant and updated information on the Programme, in particular about the application procedure, required documentation, and financial matters, as well as the Programme curriculum description shall be published on the Programme website.

Application process

The application process will be entirely on-line.











- A link to the application form and to a referee form will be provided on the Programme website.
- No application will be accepted in any other form.
- Non-submitted applications, incomplete applications and applications received after the application deadline will not be taken into consideration.
- All completed applications will be recorded and archived to ensure full transparency of the selection process.
- An acknowledgement of receipt will be sent to the e-mail address provided by the applicant at submission time.

Candidates who wish to re-submit their application in an updated version, can only do so before the application deadline.

Candidates who wish to withdraw their application should contact as early as possible the Project Office at the following email address <u>info@mastermass.eu</u>.

Required documentation

The required documents must be uploaded as digital copies and in English language versions. Applicants must provide a certified translation in the English language of any document issued in a different language. Otherwise, documents will not be taken into consideration.

The required documents are:

- 1. The completed application form;
- 2. A copy of the Bachelor's degree or an official statement specifying the expected date of the same, if not yet obtained;
- 3. The academic records including an explanation of the grade scale;
- 4. A description of relevant attended course modules that reports for each module the title, the syllabus, the grade obtained, and the number of ECTS credits or the number of hours;
- 5. An up-to-date CV (curriculum vitæ, resume), which includes a list of publications (if any), the title and short summary of the Bachelor's thesis (if applicable), a description of extra-curricular activities that are related to astrophysics and space science (if any), and skills acquired (e.g. computer/ programming skills).
- 6. A cover/motivation letter (max. 1000 words) demonstrating the consistency between the Programme objectives and the applicant's motivation, academic/professional background and professional project(s).











- A scan of the passport (a scan of the national ID will be accepted conditionally if the applicant does not have a passport at the time of the application);
- 8. Two recommendation letters. The applicants should provide the email addresses of two university professors, who are willing to submit recommendation letters in support of their application.
- 9. One of the above listed certificates of English language proficiency (if applicable).

Privacy policy

In accordance with Article 15.1 of the Grant Agreement, information relating to individuals (personal data) is collected and used by the granting authority (EACEA) in accordance with the Regulation (EC) No. 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation EC No 45/2001 and Decision No 1247/2002/EC.

In accordance with Article 15.2 of the Grant Agreement, personal data will be collected and processed by the Full Partners in compliance with the applicable EU, international and national law on data protection, in particular Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC ('GDPR') (OJ L 119, 4.5.2016, p. 1).

Application support

In order to support the applicants during the application process, two features/info will be made available on the Programme website:

- 1. A Frequently Asked Questions page covering the application process and the functioning of the application platform;
- 2. The dedicated email address <u>info@master-mass.eu</u> for requests of technical support and enquiries on administrative and content-related matters. The Coordinating Institution will take care of enquiries through the Project Office.

Selection and admission procedures

The selection and admission process will consist of three phases: eligibility check, preselection and final verification that the legalized hard-copies of the applicant's titles meet the legal requirements for admission.

Eligibility check

1. A first eligibility check will be performed by the Project Office in collaboration with the relevant authorities of the Coordinating











Institution during and immediately after the closure of the Call for Applications. At this stage, the fulfilment of the minimum requirements and of the legal admission criteria of the Full Partners will be verified. For this purpose the Project Office shall refer to the public database for the recognition and evaluation of foreign educational certificates, https://anabin.kmk.org/anabin.html

- 2. Candidates whose applications fail to meet any of the above requirements will be considered ineligible and excluded.
- The Project Office will notify ineligible participants about the reasons of their exclusion and the appeal procedure not later than two weeks from application submission.

Preselection

- 1. The Project Office prepares an overview of the eligible applications for the preselection by the Selection Committee.
- 2. Each eligible application will be evaluated on a 100-point scale by the Selection Committee. Each member of the Selection Committee signs a "Non-conflict of Interests" declaration prior to the evaluation, so as to ensure equal treatment of the candidates. In the presence of a conflict of interests with an application, the concerned member of the Selection Committee will not participate in the assessment.

The following joint selection criteria will be applied:

- 1. Academic achievement and potential (adequacy of the academic background, grades and distinctions, participation in research projects, scientific conferences, publications, elevated English language proficiency; 1 to 40);
- 2. Overall quality of the CV and academic and/or other experience (other academic competences, professional and/or volunteering experiences, international experience; 1 to 20)
- 3. The quality of the cover/motivation letter (motivation, adequacy of the professional project; 1 to 20);
- 4. Recommendation letters (1 to 20).

The Selection Committee may decide to additionally interview some of the applicants if it deems it necessary to the selection process.

Complete applications will be assessed against four criteria:

Criteria	Maximum score
Academic track record: Academic marks of the Higher Education degree giving access to the MASS Programme.	40%-Up to 40 points
Professional and research experience: research articles published in scientific journals, participation in research projects, work experience related to the Master.	20% - Up to 20 points











Reference letters from scholars that know the applicant either as a student or as a collaborator.	20% - Up to 20 points
Scientific and personal motivations for attending the Master.	20% - Up to 20 points
Personal interview, to assess the global attitude of the student (motivation, academic ability, personal background).	

Application Evaluation - Phase 1

Each member of the Selection Committee independently evaluates each application according to the above criteria, compiles a provisional ranking list, and transmits it to the Project Office, that will join all provisional ranking lists in a single document. The Selection Committee defines a score threshold, below which the quality of an application is considered insufficient for the applicant to participate in the Master programme.

Application Evaluation - Phase 2

The Selection Committee receives the overview document containing all provisional ranking lists and meets either in person or via video-conference. During the meeting, the Selection Committee discusses first those cases where there are larger discrepancies in the evaluations of the individual members and those that are close to the established score threshold, until a consensus evaluation is reached. The provisional ranking list is modified accordingly and the applications that fall above the threshold in the updated list are further discussed by the Selection Committee, until the final ranking list is produced. In this phase, the Selection Committee may decide to proceed with an interview of some of the candidates, when deemed necessary for the compilation of the final ranking list. If this is the case, the concerned candidates will be invited by e-mail to the interview.

The Selection Committee will choose the best ranked students and will propose them for admission to the MASS Programme and to the available Erasmus Mundus scholarships, according to the Erasmus Mundus regulations. Specifically, no more than 10% of the Erasmus Mundus scholarships can be awarded to students of the same nationality, with the exception of additional available scholarships for targeted regions of the world. The rest of the preselected students will go to the reserve list.

Minutes of the meeting are signed by all Selection Committee members and archived by the Project Office. These minutes may be transmitted to EACEA when required under the Erasmus+, EMJM regulations.

All candidates will be informed by email of the selection outcome of their application. Candidates in the reserve list and non-selected candidates will be alerted to the appeal procedure.

Admission procedure

Once the Executive Board has approved the list of admitted students and of those which will be proposed for Erasmus Mundus Scholarships or any 38











other available funding, and the appropriate reserve lists, the Coordinator will encode the student data on the Funding & Tenders Portal of the European Commission. For each admitted student, the Project Office will generate the fiscal code based on passport data and will transmit it to the relevant offices of the University of Rome "Tor Vergata" for enabling the student registration in the university system within the specified registration period.

All applicants will receive written communication informing them of the outcome of their application and of the details and timing of the appeal procedure. For the students placed on the reserve list for scholarship assignment, the notification includes the results of the quality assessment, the information regarding the management / use of the reserve list, and the procedure to follow for an appeal to the selection decision. For the students proposed for an EM scholarship, the notification includes: i) a letter of nomination for the award of the scholarship, conditional to the fulfilment of all formal requirements for the admission to the MASS entrance university; ii) a letter of admission with a clear indication of the study period and of the possible study paths within the MASS Consortium; iii) a model of the Student Agreement; iv) practical information on the Programme, the scholarship amount and the Visa and enrollment procedures.

Selected applicants

Those applicants proposed for admission will be asked to confirm their intention to enrol to the Master Programme within 1 week from the date of the notification e-mail. They will be asked to provide legalized hard copies of their study certificates for verification purposes. A statement of comparability and the verification of foreign qualifications through the Information Centre on Academic Mobility and Equivalence, CIMEA will be necessary to enable the student enrollment to the MASS program. Further information, as well as the insurance documents and card and any other necessary document for the visa application will be provided to the applicants from the Project Office.

Reserve list

The remaining candidates that are selected, but not offered a scholarship because of their lower ranking, are placed on the RESERVE LIST. Candidates on this list might be offered an EMJM scholarship if candidates on the main list drop out or fail to provide a complete application package before the deadline. In such cases the EMJM scholarship will be offered to reserve list candidates in order of ranking and in the respect of the EMJM regulations about the maximum number of scholarships for students either of the same nationality or coming from Erasmus+ targeted (NDICI and IPA) countries. Candidates that are on the RESERVE LIST and that have not been offered a scholarship, will be offered the possibility to participate in the MASS programme as self-funded students, in order of ranking and until the maximum capacity of a total of 30 students per course edition is reached. Invited self-funded participants will have to confirm their











intention to enrol in the Master Programme within 1 week from the date of the invitation e-mail. They will have to provide legalized hard copies of their study certificates for verification purposes. A statement of comparability and the verification of foreign qualifications through CIMEA will be necessary to enable the student enrollment at the MASS entrance university. Those applicants who decide to participate on own or external funds will receive via e-mail: i) a letter of admission to the MASS programme, conditional to fulfilment of all formal requirements for the admission, with a clear indication of the study period and of the possible study paths within the MASS Consortium; ii) a model of the Student Agreement and iii) the same practical information and insurance package provided to scholarship awardees.

Enrollment

Non-EU applicants admitted to the MASS programme are required to complete a pre-enrollment procedure through Universitaly at https://www.universitaly.it/ as part of the procedure for the visa request. Concerned students will receive via email detailed relevant guidelines.

All applicants accepted for participation in the MASS programme are required to complete the on-line enrollment procedure at the entrance university, the University of Rome "Tor Vergata".

In order to comply with mobility regulations for EMJM scholarship holders, the Project Office will verify the place of residence of the students at enrolment stage on the basis of the provision of:

- A residence certificate issued in accordance with the candidate's municipality normal registration rules;
- or a certificate from the candidate's place of work, study or training issued by the employer or institution in question.











Annex V: Student Support Activities

Welcome and Information days

The welcome and information days in Rome play an important role to initiate the integration of the students. They are designed to give more academic information about the MASS Partners, mobility schemes, registration procedures, course contents and language course. This initial welcome week allows students to acquire an awareness of the European heritage and culture.

During the welcome and information days, important issues regarding the students' working environment are discussed:

- The MASS programme and the mobility issues, such as the reason for these 4 universities for mobility scheme, the transfer between the 4 universities, the role of the Summer and Winter schools and the Associated Partners.
- The list of the courses offered by the 4 Partner universities;
- The students' rights and duties (including presentation and signature of the Student Agreement);
- The current perspective and the correlation between the field of studies and its related jobs in this area.

The participation of Associated Partners is considered as an adequate complement to the course content and activities. The Associated Partners and also external stakeholders, such as representatives of embassies, alumni association or industrial actors from European and non-European countries, have the opportunity to participate on this special occasion to develop collaborative links with the MASS programme (e.g.: internship offers).

At the end of the welcome and information days, MASS students are expected to communicate their intentions about the study plan and mobility scheme for the second semester. In any case, students shall submit their proposed plans by November $15^{\rm th}$. The Teaching Committee will formally approve these plans, or suggest alternatives, at the latest by December $15^{\rm th}$.

Summer and Winter Schools

The Summer and Winter schools are an important part of the master programme to enhance an effective integration with a professional environment. The schools are organized by the Coordinator with an organizing committee composed of colleagues from the Full Partners. Each School has a Scientific Chairperson proposed by the coordinator and accepted by the Consortium. The Summer School lasts for 1-2 weeks and takes place in June-July in holiday houses. The Winter School lasts for 3-5 days and takes place in January- February in holiday houses. They are











financed with the Participation costs from the EU budget and with money and in-kind contributions provided by the Partners. These periods allow the students to be in close contact with invited scholars, guest lecturers and researchers from industrial labs. This is a good opportunity for them to get in touch with experts from the field of Astrophysics and Space Science and Engineering (guests from the companies among the Third Parties are invited to talk about the future plans concerning internship and employment). All associated partners are invited to provide speakers for Summer and Winter schools.

Alumni network

Networking is a current reality. An "Alumni" account and social network (e.g. Facebook) page is created to set up an educational network between MASS programme students and graduates. This initiative considerably facilitates interconnections between the students (strengthening of social networks). They would be able to share their views related to the programme and to future professional opportunities. All associated partners are able to take part, in particular industrial partners which can identify a representative who will be actively present in the network. The networking can be exceptionally used for study purposes (if justified, especially for long distance communication).

Student issues and services to the students

A student on-line handbook is promoted together with an alumni association that will provide information/services to the incoming students.

Students with special needs will receive specific assistance for lecture notes and for exam organization (longer time given to them, depending on their disabilities). Each Full Partner has a dedicated office for students with special needs. These offices coordinate, monitor and support all activities aimed at facilitating the integration into the University life:

- in Rome: http://caris.uniroma2.it/;
- 2. in Belgrade, the University Centre for Students with Disabilities (http://bg.ac.rs/en/members/centers/students-with-disabilities.php);
- 3. in Bremen (https://www.uni-bremen.de/en/office-for-students-with-disabilities-or-chronic-diseases-kis);
- 4. in Nice, the "Service Relations Internationales de UCA" (contact: Anaelle.LEQUEUE@univ-cotedazur.fr).

Before the arrival of students to Europe, the Administrative officer of Rome Tor Vergata University sends them via e-mails a detailed guide containing all useful practical information, a "from airport to classroom" itinerary including a map of the campus and its neighborhoods, the names and mobile phone numbers of the teachers responsible for the courses, the location and the programme of the welcome meeting. All this information is also made available on the MASS website.











Each Partner provides students with the complete schedule of courses and exams at the very beginning of the term. A special cultural programme is offered to students in each country.

The arrival of students is scheduled at least one week before the courses start to allow them to participate in the welcome integration week in Rome. After the registration in Rome, all documents are forwarded to the three partner universities for registration in their own institution.

All partners provide service and information to the students:

- In Rome (http://web.uniroma2.it/en/contenuto/international_students_office);
- 2. In Belgrade (http://bg.ac.rs/en/students/students.php);
- 3. In Bremen (https://www.uni-bremen.de/en/sfs/);
- 4. In Nice (http://etudiants.nice.fr/).

The university libraries are free of charge in the 4 Partner Universities, including data banks and internet resources, such as Web of Science, Scopus etc.

- In Rome, the Science and Engineering Libraries are both available. The relevant web site is: https://web.uniroma2.it/it/percorso/biblioteca_area_scientifico_tecnologica
- 2. In Belgrade, the university library "Svetozar Marković" is at: http://bg.ac.rs/en/members/library.php
- 3. In Bremen, the university library is at: https://www.suub.uni-bremen.de/home-english.
- 4. In Nice, the library of OCA (Astrophysics) is available at https://www.oca.eu/fr/bibliotheque-oca or https://bu.univ-cotedazur.fr/fr.

Rooms dedicated for student studies are available throughout the Partner Universities. In Rome, the students may choose to be lodged in the university residence Campus X, https://www.cx-place.com/it/cx-rome.html. In Nice, several student residences rent rooms and service for help exists, ex: https://trouverunlogement.lescrous.fr/. In Belgrade, students can apply for accommodation in student residencies, all information can be found at http://bg.ac.rs/en/students/appartments-dormitories.php. In Bremen, the students can be accommodated in so called students houses https://www.uni-bremen.de/en/university/campus/housing/

Language courses are offered to the enrolled students.

 In Rome, classes in Advanced English and in Italian are given by the CLA (Centro Linguistico di Ateneo), http://cla.uniroma2.it/ and CLICI (Italian Culture and Language Center) http://clici.uniroma2.it/en/theclici/.











- 2. In Belgrade, those courses are provided by the Center for Serbian (http://learnserbian.fil.bg.ac.rs).
- 3. In Bremen, the language courses are provided by the Fremdsprachenzentrum (https://www.fremdsprachenzentrum-bremen.de/230.0.html?&L=1).
- 4. In Nice, the language courses are organized by CNRS for PhD students, but an agreement has been found for MASS students visiting UCA.

The medical and accident insurance is included in the participation costs. The insurance provides protection for:

- 1. risks such as illness, accident, death, permanent disability, third-party liability;
- 2. worldwide travel required for the participation in the EMJM program;
- 3. mobility periods in both programme and partner countries.

All of these elements are covered through a global insurance contract with an insurance company. The payment is ensured globally for the whole class for a two-year period coverage. The bank transfer is made from the Coordinating institution to the Insurance Company.

Complaints and appeals will be analysed by the Teaching Committee and discussed by the Executive Board.



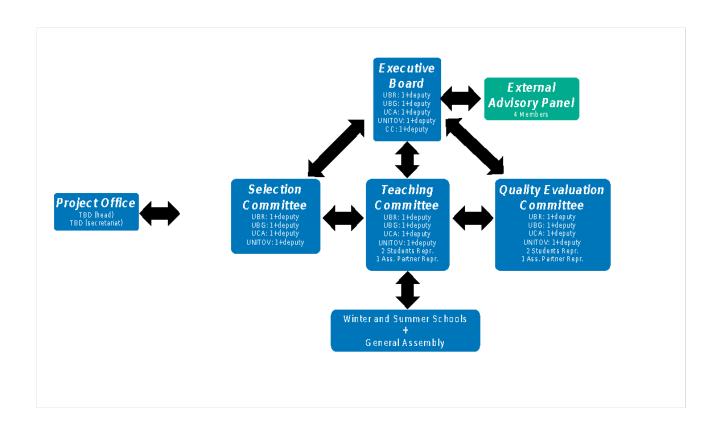








<u>Annex VI - Governing Bodies of the MASS</u> <u>Consortium</u>



Consortium Coordinator (CC)

The CC shall be the intermediary between the Parties and the Funding Authority and shall perform all tasks assigned to her/him as described in the Grant Agreement and in the Consortium Agreement.

The CC shall be responsible for the overall management of the Programme at the central level.

Executive Board (EB)

The EB is:

- the governing body of the MASS consortium;
- composed of:
- the CC (or her/his deputy) Chair;

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one representative (or a deputy) for each of the Full Partners.

The EB is in charge of the general management, overseeing all the aspects related to the delivery of the Programme. In particular,

- it makes/takes decisions on all organizational and financial issues (eg. financial and other reports required under the terms of contract with EACEA);
- it makes/takes decisions about the inclusion of new partners;
- it defines the Consortium policies and takes strategic long-term decisions;
- it resolves disputes deals with controversies between Consortium Members and Programme students.

The decisions of the EB are taken during the plenary meetings, videoconferences, or by emails. The EB shall not decide validly unless 100% of its Members are present or represented (quorum).

Selection Committee (SC)

The SC shall be composed of:

one representative (and/or a deputy) for each of the Full Partners.

The SC is in charge of the selection process,

- evaluating the files of applicants;
- selecting candidate participants;
- ranking them according to quality for the award of scholarships and for participation to the programme.

Teaching Committee (TC)

The TC takes decisions on the main academic aspects of the program (eg. changes in the compulsory courses and optional courses, consistency of mobility paths, etc.).

The TC is composed of:

- one representative (and/or a deputy) for each of the Full Partners;
- one representative of the Associated Partners;
- two student representatives (one per ongoing course edition)

The TC is in charge for:

- evaluating the study programs of the students and validating their mobility plans, taking account for balance among the Full Partners;
- supporting students in the selection of the projects for the Master thesis;
- organizing the mobility of Full and Associated Partners staff.











Additionally, the TC:

- evaluates the applications of candidate visiting scholars and decides about their participations to the MASS programme;
- monitors any changes in Partner Institutions' educational offer and validate syllabuses of new courses to be included in the Programme.

Quality Evaluation Committee (QEC)

The QEC is composed of:

- one representative (and/or a deputy) for each of the Full Partners;
- one representative of Associated Partners;
- two student representatives (one per ongoing course edition).

The QEC is responsible for:

- monitoring the quality of the Programme, designing and implementing quality enhancement policies;
- reviewing consortium policies;
- monitoring progress against targets;
- defining clear effectiveness and efficiency criteria;
- monitoring and promoting equality, diversity and inclusivity in the project.

External Advisory Panel

The EAP shall provide independent advices to the EB and to the QEC. The EAP is composed of international experts nominated by the EB.

The EAP shall make recommendations to the CC

- on crucial technical choices, taking into consideration the international context;
- on the distribution of resources to comply with priorities;
- on the planning of activities.

Project Office (PO)

The PO shall provide support by dealing with all the administrative questions.

The PO shall be in charge of practical issues related to student studies and mobility.

The PO is composed of the PO Head and the PO Secretary.











Local Academic Coordinators of the Consortium:

University of Rome Tor Vergata (UNITOV), Rome, Italy Prof. Nicola Vittorio

2. University of Belgrade (UBG), Belgrade, Serbia **Prof.**

Dragana Ilić

3. University of Bremen (UB), Bremen, Germany **Prof. Annette Ladstätter-Weißenmayer**

4. University of Côte d'Azur (UCA), Nice, France Prof. Frédéric Thévenin

MASS Project Office

Physics Department

University of Rome "Tor Vergata"

Via della Ricerca Scientifica, 1

00133 Rome, Italy

project-office@master-mass.eu

, , ,		
Role	Name & Contacts	
Head of MASS Project Office	Sonia Giovanna Temporin	
	giotemporin@gmail.com	
MASS Project Office Secretariat	Adalia Caroli	
	acaroli@roma2.infn.it	

Administrative Contact Points		
Role Name & Contacts		
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Physics Dept. Contact point	Laura Calconi	
	laura.calconi@roma2.infn.it	
International Students Office	Angelina De Benedictis	
	debenedi@uniroma2.it	











International Students Office	Silvia Neri	
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International Study Programmes	Aurelio Capri	
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University of Bremen (UB), Bremen, Germany		
Administrative coordination of international Multiple Degree Programs	Dr. Pia Kegler	
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University of Côte d'Azur (UCA), Nice, France		
Administrative officer	Virginie Oddo	
	Virignie.oddo@univ-cotedazur.fr	











Data Protection Officers		
Role	Name & Contacts	
University of Rome Tor Vergata (UNITOV), Rom	e, Italy	
Data Protection Officer and Information Security	Ripartizione Protezione Dati Personali e Conservazione Digitale - Ing. Ingrid.Giuli	
	Ingrid.Giuli@uniroma2.it	
	Rettorato, Via Cracovia 50, Edificio D, Stanza D.0.10, 00133 – Roma	
	Tel. 06/72592151	
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University of Belgrade (UBG), Belgrade, Serbia		
Data Protection Officer	Dr. Slavko Gajin	
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Data Protection Officer	Petra Banik	
	+49 421 218 60211	
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University of Côte d'Azur (UCA), Nice, France		
Direction des Affaires Juridiques, Institutionnelles et de la Modernisation	Alice Breton	
	Université Côte d'Azur	
	Grand Château Valrose –28 avenue Valrose BP 2135 - 06103 NICE CEDEX 2	
	Alice.BRETON@univ-cotedazur.fr	











Annex VII: List of the Third Parties

Partner # and Country	Institution
P5: Italy	EIE group
P6: Italy	INAF-OAR (Rome Observatory)
P7: Italy	INAF-IAPS (Institute for Space Astrophysics and Planetology)
P8: France	Thales-Alenia
P9: France	Observatoire Côte d'Azur
P10: Germany	ОНВ
P11: Serbia	Astronomical Observatory of Belgrade
P12: Italy	A.D.S. International
P13: Italy	Agenzia Spaziale Italiana











Annex VIII - Template of Student Agreement



Erasmus Mundus Joint Master in
Astrophysics and Space Science - MASS
(Project No. 101050044 ERASMUS-EDU-2021 PEX-EMJM-MOB)

LETTER OF AGREEMENT

Students enrolled in the Erasmus Mundus Joint Master programme MASS

Preamble:

This Letter of Agreement sets out the role, rights and duties of the parties directly involved in ensuring the successful completion of the **Erasmus+**, **Erasmus Mundus Joint Master (EMJM)** programme in Astrophysics and Space Science (MASS) by the Student mentioned below.

The parties commit to comply with local rules and customary practices. Consortium Universities are the University of Rome "Tor Vergata" (Italy) as the Coordinating Institution, the University of Belgrade (Serbia), the University of Bremen (Germany), and the University of Côte d'Azur (France). Third Parties are: EIE GROUP (Italy), INAF-OAR (Astronomical Observatory of Rome, Italy), INAF-IAPS (Institute for Space Astrophysics and Planetology, Italy), Thales-Alenia (France), Observatoire de la Côte d'Azur (France), OHB (Germany), Astronomical Observatory of Belgrade (Serbia), A.D.S. International (Italy), and the Italian Space Agency (ASI, Italy).

This Letter of Agreement is subject to the general terms and conditions of the Grant Agreement for the Project 101050044 – MASS (thereafter called "GA"), the regulations of the Erasmus+ Programme Guide (thereafter called "E+PG" –

http://ec.europa.eu/programmes/erasmus-plus/documents/erasmus-plus-











<u>programme-guide_en.pdf</u>), and the general terms and conditions of the MASS Consortium Agreement (thereafter called "CA").

The undersigned

- 1. The University of Rome "Tor Vergata", whose registered office is in Via Cracovia, 50, 00133, Roma, Italy, represented by the Programme Coordinator of MASS, Prof. Nicola Vittorio, hereinafter referred to as the "Coordinating Institution"
- 2. <fill in name of student>, born <fill in date and place>, nationality <fill in nationality>, identified by passport number <fill in passport number>, hereinafter referred to as the "Student"

have agreed as follows:

Article 1: Key elements

The EMJM-MASS Edition <insert edition no.> starts on <insert start-date> and ends with <insert end-date>. The duration is 4 semesters (24 months) that must be carried out in at least 2 and up to 4 of the Consortium Universities, of which at least one must be located in an EU Member State or third country associated to the Erasmus+ programme ("Programme Country"). These two countries must be different from the Student's country of residence at enrolment stage.

The Student is expected to arrive in Rome latest by <insert date> in order to have enough time to settle, accomplish all necessary formalities, and participate in the Welcome and Information Days before the start of the lectures (<insert date of start of lectures>).

Before the start of the semester the Welcome and Information Days (from <insert date> to <insert date>) for all new students are organized at the University of Rome "Tor Vergata", followed by an informal get together on <insert date>.

The official Welcome Reception is planned on <insert date> at the University of Rome "Tor Vergata".

The first semester (winter term <insert academic year>) starts officially on <insert date> and ends on <insert date>. Three to five days in January / February are dedicated to the Winter School. The rest of January and February is dedicated to exam sessions.

A local Information Day will take place at each Consortium University hosting MASS students in the semesters after the first.

1.1. Enrollment procedures

The Student is required to complete the on-line enrollment procedure at the Coordinating Institution, the University of Rome "Tor Vergata".

The enrollment procedure consists of the following steps:











- Access the website: https://delphi.uniroma2.it/totem/jsp/index.jsp?
 language=EN;
- 2. Select "Student Section", Point 2 Registration;
- 3. Select "start application procedures";
- 4. Choose the MASS course:
- Upload the education qualification;
- 6. Select "print": the system will provide the applicant with the enrollment application and the list of the documents which must be uploaded;
- 7. Take note of the CTRL and fiscal codes;
- 8. Select in the Students section, key 2 (Registration) point B "you have already filled out an application";
- 9. Insert the CTRL and fiscal codes;
- 10. Upload the following required documents for enrollment:
 - a. final academic title
 - b. Statement of Comparability issued by the CIMEA;
 - c. Transcript issued by the competent university which states the exams passed or the "Diploma Supplement";
 - d. Acceptance letter issued by the University of Rome "Tor Vergata".
 - e. Head size passport-photo (The photo must be frontal, without any extraneous elements to the person File size: maximum 500kb File format: JPG)
 - f. Passport and study visa
 - g. Pre-enrollment application, to be downloaded from https://www.universitaly.it/ (only for non EU-applicants applying for the visa)

It is necessary to upload a pdf file for each document.

The enrolled Student will receive the student registration number upon arrival at the University of Rome "Tor Vergata" and will finalize in person the registration at the relevant university offices with the assistance of a member of the local MASS staff.

Additionally, the Student shall complete the enrollment procedures at each of the other Consortium Universities where she/he will spend a study period of one or more semesters in compliance with Article 3 of this Letter of Agreement. The Student shall comply with the enrollment calendar and deadlines set out by each Consortium University, if applicable. In case of an enrollment at the University of Bremen, certified hard copies of certain documents are required.











Article 2: Financial aspects

2.1. Participation costs

- 2.1.1. The participation costs are set to 6,250 € per semester over the four term period of the programme. This amount covers any mandatory administrative/operational cost related to the Student's participation in the EMJM-MASS (e.g. including tuition fees, full insurance coverage, administrative costs related to the issuing of the Diploma and Diploma Supplement, and services to cover individual needs in the case of enrolled students with disabilities) for two academic years. If an extension is required to finalize the studies, exams, thesis or thesis defence beyond <insert date>, unless otherwise noted in the GA (e.g. prolonged illness or for parental leave), it is on Student's responsibility to cover all further participation costs according to the national regulations of the Consortium University where the thesis defence is foreseen.
- 2.1.2. Any other costs that may occur outside the EMJM-MASS programme for participation in voluntary activities, must be taken over by the Student.

Articles 2.2 and 2.3 are only applicable to holders of either an EMJM scholarship or a fee waiver.

2.2. Amount and payment of the grant

2.2.1. The Student will be exempted from the payment of the participation costs referred to in Article 2.1.1. These costs will be covered with the unit costs granted by the European Education and Culture Executive Agency (EACEA) of the European Commission in accordance with the GA and/or with other funds possibly available to the MASS Consortium.

Articles 2.2.2. to 2.2.5 are only applicable to holders of an EMJM scholarship.

2.2.2. The Student will receive an EMJM scholarship granted by the European Education and Culture Executive Agency (EACEA) of the European Commission as described in the E+PG. The maximum total amount of the scholarship is $33,600 \in \mathbb{C}$. This is a contribution to travel and subsistence costs in the amount of $1,400 \in \mathbb{C}$ per month for the entire duration of the participation of the Student in the MASS programme (up to 24 months).

The scholarship will be paid monthly (at the end of the month) by the Coordinating Institution over the period of the MASS programme as defined in Article 1, provided that the Student complies with Article 4. The first monthly allowance will be paid at the end of the first month of the Master course and in any case after the arrival and registration of the Student at the University of Rome "Tor Vergata".

2.2.3. The Student will open an Italian bank account and will provide the full details of this account to the MASS Project Office. The grant will be











transferred to this account. The Coordinating Institution offers assistance in establishing such an account at a local bank in Rome.

- 2.2.4. The scholarship does not create or entitle an employer-employee relation between the Coordinating Institution and the Student, and therefore is not subject to direct taxation. The Student is obliged to take care of any tax issue concerning the fiscal laws in her/his home country.
- 2.2.5. The Student affirms that her/his status conforms to the rules for EMJM scholarship holders in the E+PG, and especially that she/he does not benefit at the same time from another European Union funded scholarship scheme to follow the same (or another) EMJM master course and that she/he was not beneficiary of any previous Erasmus Mundus Master Course (EMMC) or EMIMD grant of the European Union.

2.3. Rules for reimbursement

The Student agrees that the scholarship payments and/or fee waiving contribution stop with prior leaving of the course. A reduction of the scholarship applies in case the minimum mobility requirements as set in Article 1 and Article 3.1 are not fulfilled. In particular,

- in the case of termination of the Student participation because of failure to pass a compulsory exam after the maximum number of resits allowed by university regulations, the payment of the scholarship will be interrupted at the last failed exam attempt.
- If the Student graduates earlier than the official end of the EMJM-MASS, the payment of the scholarship shall end at graduation time.
- If the Student voluntarily interrupts the studies, the scholarship will stop at the time when the Student leaves the Consortium Universities. The Coordinating Institution shall recover all unjustified/ineligible scholarship payments received by the Student as a result of her/his failure to communicate the interruption of studies in due time.
- The above applies also in case of a temporary interruption of the studies because of parental leave, severe illness or accident, or other emergency situation (e.g. death of a close relative). In this case the payment of the scholarship will resume when the Student resumes the studies, provided that the Erasmus EMJM action is still ongoing, hence not later than 31st December, 2027 (GA, Data Sheet, Point 1.).
- If the Student does not fulfil the minimum mobility requirements, the scholarship will be reduced by a proportionate amount corresponding to the missing mobility period of the concerned academic semester.











2.4. Vocational occupation

The Student may embark on any vocational occupation with a regular salary in parallel to the studies under the EMJM-MASS, provided this does not interfere with the Student's attendance and proficiency in the study programme. It is then on the Student to obtain a work permit (if needed) and to pay resulting taxes locally and/or in her/his country of residence. It is not allowed to embark on any vocational occupation at the University of Rome "Tor Vergata".

Article 3: Student mobility

3.1. Mobility paths

The 1st semester (<insert start and end dates>) of studies always takes place in Rome (Italy), at the Coordinating Institution. This is the entrance university for all MASS students, who will remain enrolled at the University of Rome "Tor Vergata" for the whole duration of their studies.

At the end of the Welcome and Information Days, the Student is expected to communicate her/his intentions about the study plan and mobility scheme for the second semester. In any case the Student shall submit her/his proposed plans by November 15th, <insert year>. Mid-term of the second semester, the Student will be asked to express her/his first and second choices for the destination in the subsequent semesters. The study plan and mobility path proposed by the Student is subject to approval by the MASS Teaching Committee according to Article 5.3 and Annex V of the CA and to the mobility requirements set out in the E+PG. In particular, the mobility path must include 1 semester of studies in each of at least 2 countries, of which at least one must be an EU Member State or a third country associated to the Erasmus+ Programme. These two countries must be different from the Student's country of residence at enrolment stage ("Mobility Rule").

The Winter School lasts for 3-5 days and takes place in January-February in holiday houses.

The 2nd semester (<insert start and end dates>) takes place in France, Germany, or Serbia, at one of the three Consortium Universities, University of Côte d'Azur, University of Bremen, University of Belgrade.

The Summer School lasts for 1-2 weeks and takes place in June-July in holiday houses.

The summer break takes place in August.

The 3rd semester (<insert start and end dates>) takes place at a chosen location among the four Consortium Universities. It includes an internship that may be offered by a Third Party in collaboration with the Consortium University where the Student spends the third semester. The Student shall participate in the second Winter School at the end of the 3rd semester.











The Master Thesis must be completed during the 4th semester (<insert start and end dates>) and any of the 4 Consortium Universities can be chosen. The Master Thesis will be jointly supervised by two academics belonging to different Consortium Universities, in accordance with Article 9 of the CA. The defence of the Master Thesis will take place at the Consortium University hosting the Student for the 4th semester.

An official graduation ceremony is held at the Coordinating Institution. The Student may participate on her/his own costs and organization. The MASS Project Office will circulate all relevant information.

3.2. Further mobility constraints

Although the Student can choose the mobility path through the Consortium Universities from the 2nd semester onward, in the respect of the terms set out in Article 3.1, in order to ensure an excellent quality of the course only a maximum fraction of students per site is allowed. This maximum fraction is of 40% in the 2nd semester and 30% in the 3rd and 4th semesters. Therefore, at mid-course of the second semester the Student will be asked to give her/his preference(s) for the subsequent semesters. The admission requirements at the Consortium Universities may differ and have to be taken into account when the Student select the study plan.

The Executive Board may re-direct some students to sites different from their chosen ones, by taking into account any alternative mobility paths suggested by the Teaching Committee.

Article 4: Code of conduct

4.1. Student obligations

Under the present contract, the Student is obliged

- to present a proof of her/his place of residence at enrolment stage, in order to conform to the rules on mobility for EMJM enrolled students. This proof of residence can be a residence certificate or a certificate from Student's work, study or training, issued (in English) by the employer or institution in question;
- to abide by the Code of Conduct adopted by the MASS Consortium and published on the MASS website. By signing the present Letter of Agreement, the Student confirms of having read and accepted the EMIM-MASS Code of Conduct;
- to attend assiduously, and with the objective of successfully passing, the modules, and the thesis inherent in the programme of studies. Any absence longer than one week should be justified to and approved by the Local Coordinator;











- to comply with the local regulations for examinations and re-sits that apply at each Consortium University where she/he is spending a study period;
- to acquire at least 30 ECTS per semester and at least 120 ECTS over the duration of the programme. The Student will finish her/his Master Thesis before <insert date>. If an extension is required to finalize the studies, exams, thesis or thesis defence beyond <insert date>, unless otherwise noted in the GA (e.g. prolonged illness or for parental leave), it is on the Student's responsibility to take all necessary steps;
- to refrain from any kind of plagiarism in the preparation of course assignments and of the Master thesis;
- (only applicable to holders of an EMJM scholarship) not to receive any other scholarship or subvention financed by the European Union to follow the EMJM-MASS (or another EMJM) master course, for the entire period of enrolment in the EMJM-MASS;
- to participate in any additional activities like Winter and Summer Schools, fieldwork, etc., that are specifically organized by the MASS Consortium as a part of the EMJM-MASS;
- to notify the Coordinating Institution without delay about any decision to leave the programme ahead of time or about any circumstances that lead to an (even temporary) interruption of the studies;
- to notify and seek permission of the Coordinating Institution prior to take up any internship or participate in any Summer/Winter school or other scientific activity in addition to those organized by the MASS Consortium;
- not to take courses with the same contents at the different Consortium Universities on her/his mobility path;
- to participate in evaluations/surveys conducted by the Consortium and/or the European Education and Culture Executive Agency EACEA of the European Commission. These evaluations are carried out anonymously.

If the Student has special needs because of a disability (e.g. long-term physical, mental, intellectual or sensory impairments), the Student shall

- provide a certified English translation of the medical certificate about her/his condition;
- declare what type of items/services are needed and their costs.

4.2. Non-fulfilment

Any deliberate failure on the part of the Student to fulfil the conditions expected in terms of attendance at the EMJM-MASS, in particular non-fulfilment of the conditions stipulated in this Letter of Agreement, constitutes sufficient reason for action to be taken towards resolving the











issue and could lead to the reimbursement of any scholarship awarded. In the case of reimbursement, the Coordinating Institution will determine the amount to be reimbursed (see also Article 2.3).

4.3. Student performance

The Student's performance will be monitored by the MASS Project Office at the Coordinating Institution. With successful completion of the semester exams, on the bases of the required Data Protection Agreements (to be signed separately) between the parties, if and to the extent that this is necessary, a transcript of records may be forwarded from the relevant Consortium University to the Project Office and then transferred to the Coordinating University. The Student can access the transcript of records through the on-line services of the Coordinating Institution.

4.4. Student progress

If the Student does not make sufficient progress, e.g. does not acquire at least 30 ECTS per semester, the payment of the scholarship may be terminated. It is strongly recommended that ECTS/examinations are completed by the end of the current semester.

4.5. Student e-mail and communications

The Student is provided with an immutable e-mail account by the Coordinating Institution for the entire duration of the study programme. Official communications take place through this account. The Student commits her/himself to check the e-mail account on a daily basis.

Article 5: EMJM Diploma

Applicable to students of the 1st Edition of MASS

With successful completion of the EMJM-MASS, and after having supplied all requested documents, the Student receives a graduation certificate, and is awarded a Double/Multiple Master Degree in the form of a legally recognized diploma and a Diploma Supplement issued by each Consortium University where she/he spent a study period of at least one semester (30 ECTS credits) in line with the national regulations.

<u>Applicable to students of subsequent editions of MASS after the installation of the Joint Degree</u>

With successful completion of the EMJM-MASS, and after having supplied all requested documents, the Student receives a graduation certificate, and is awarded by the MASS Consortium a Joint Master Degree in the form of a legally recognized diploma signed by the legal representatives of all Consortium Universities and a Joint Diploma Supplement.

Article 6: Accident, health and travel insurance











6.1. Liability

The Coordinating Institution is exonerated from any responsibility for accidents, illnesses, injuries, losses or damages to persons or goods resulting from or in any way related to the activities that are the object of this Letter of Agreement. The Student is obliged to accept the necessary insurance related to the activities for the full duration of the study period.

6.2. Insurance

The Student is provided with the health, accident, and travel insurance package "<insert name of insurance company and package>" that will be valid for the whole period of studies and in all countries visited. Insurance expenses are included in the participation costs and as such are covered by any awarded EMJM scholarship or MASS fee waiver.

Additionally, the Student will be assisted in obtaining an European Health Insurance Card, if she/he does not possess one at enrolment time.

6.3. Insurance requirements

The insurance package fulfils the minimum requirements of EACEA for Erasmus+, EMJM students as set out in the E+PG and in the GA. The insurance will be active from the moment when the Student starts her/his journey to reach the entrance university, in any case not more than two months before the starting date of the Master course.

For visits to a general practitioner the Student should expect to pay the doctor's bill and then being refunded by the insurance after filing a claim, while in the case of hospitalization the insurance will pay directly the hospital bill. The insurance's telephone number for emergency calls will be available 24 hours a day, 7 days a week.

6.4. Insurance limitations

The insurance does not cover pre-existing medical problems.

Article 7: Services to Student

The Consortium Universities offer either support or information to the Student in issues like housing, visa / residence permit procedures, local language courses.

The local Member of the Teaching Committee will be presented at semester start during the local Information Day at each Consortium University. Furthermore, the competent authorities at the relevant International Relations Office will get in contact with the Student before the start of the semester at a Consortium University.

The Student has access to the libraries and computing facilities of all Consortium Universities, to on-line services for the access to transcripts of records and to internet connection within the university premises, which











implies access to professional journals through the institutional subscriptions.

Each Consortium University has a dedicated office for students with special needs. These offices coordinate, monitor and support all activities aimed at facilitating the integration into the University life. Students with special needs will receive specific assistance for lecture notes and for exam organization and provided with needed special items or services, depending on their certified disabilities. Enrolled students with disabilities will be asked to declare what type of items/services are needed and their costs.

Article 8: Internships and Summer/Winter schools

The Student is required to participate in the Winter/Summer Schools and internships organized by the MASS Consortium as an integral part of the EMJM programme. Furthermore, the Student is encouraged to take up internships and/or participate in summer schools or scientific congresses on topics related to the study programme at either the Consortium Universities, Third Parties / Associated Partners, or external organisations during semester breaks, provided these activities do not interfere with her/his performance within the programme. Any financial support or income received by the Student in relation with such activities must comply with the financial conditions expressed in Articles 2.4. and 4.1 of the present Letter of Agreement.

Article 9: Appeal and complaints procedure

9.1. Communication channels

Several communication channels within the MASS Consortium are available to the Student to seek advice, to point out any problem or to express concerns or complaints about any aspect of the program, namely:

- through the MASS Student Representatives, who in turn can contact the relevant authorities, according to the nature of the issue;
- through the local Member of the Teaching Committee at the Consortium University where the Student is spending a study period;
- through the MASS Project Office either via email or in person;
- during periodic meetings like Winter and Summer Schools;
- through on-line anonymous surveys at the end of each semester;
- by contacting directly the Consortium Coordinator.











9.2. Formal appeals and complaints

Should a raised issue remain unsolved after the Student has contacted the relevant Consortium authorities through the communication channels mentioned in Article 9.1., the Student has the possibility to file a formal appeal or complaint by filling in the dedicated complaint form on the MASS website and submitting it to the MASS Project Office. Before submitting the complaint form, the Student will be asked to read and accept the Privacy Statement.

Upon receipt of the filled in complaint form, the Project Office will transmit it to the competent authority within the MASS Consortium and inform the Student accordingly with an indication of the expected response time.

The competent Consortium governing body shall

- assess the situation or practice described by the Student against the objectives and requirements of the MASS programme as set out in the GA and in the CA and against the internal regulations of the concerned Consortium University and/or relevant national regulations;
- evaluate whether an action has to be taken to address the issue and, in positive case, take a decision on the action to be taken;

The Student may be contacted by the MASS authorities during the treatment of the complaint and asked to provide further information. When the complaint is considered closed, the Student will receive a formal reply from the MASS Consortium.

Article 10: Erasmus Mundus Students and Alumni Association

The Student is strongly encouraged to join the Erasmus Mundus Students and Alumni Association (EMA) at the URL https://www.em-a.eu/. EMA is supported by the European Commission to provide networking and communication channels for all students and graduates of Erasmus Mundus Master and Doctoral programmes. In order to become an EMA member, the Student should register in the EMA's Community Portal at https://members.em-a.eu/ and provide a proof of her/his EMJM student status. Registration and membership are free of cost.

Article 11: Online resources

The Student will find links for further information on the MASS website www.master-mass.eu .











Article 12: Student data privacy

The MASS Consortium privacy policy will comply with the EU Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation hereinafter referred to as "GDPR") (OJ L 119, 4.5.2016, p. 1). The Student will have the right to obtain confirmation and communication of personal data concerning her/him, which are being processed and benefits of the rights set out in Sections 2, 3 and 4, Chapter III of the GDPR (EU) 2016/679 (i.e. the right to request from the Data Controller "access to and rectification or erasure of personal data or restriction of processing concerning the data subject or to object to processing as well as the right to data portability").

In accordance with Article 15.1 of the Grant Agreement, information relating to individuals (personal data) is collected and used by the granting authority (EACEA) in accordance with the Regulation (EC) No. 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation EC No 45/2001 and Decision No 1247/2002/EC (OJ L 295, 21.11.2018, p. 39).

Article 13: Modifications of the contract

Any alteration to the present contract must be communicated in writing. All alterations to the initial situation must be immediately communicated by the Student to the Coordinating Institution. Upon mutual agreement of contractual modifications, the Coordinating Institution will issue an addendum to the present Letter of Agreement.

Without prejudice to the general consequences laid down in the national law applicable in this Letter of Agreement, the Coordinating Institution reserves the right to cease the effects of the Letter of Agreement, without recourse to any juridical procedure apart from adequate communication to the Student. Failing agreement by both parties, the Italian courts are designated as the only competent authorities to resolve any legal dispute between the Coordinating Institution and the Student emerging from the Letter of Agreement. The present contract will be governed by Italian Law.

The signatories declare that they have read and accept the preamble and conditions laid down in this Letter of Agreement.

The Student agrees with the terms of this Letter of Agreement by signing the copy and returning it to:

MASS Project Office Department of Physics











University of Rome "Tor Vergata"
Via della Ricerca Scientifica .1. 00133 Rome. ITALY

Via della Ricerca Scientifica ,1, 00133 Rome, ITALY			
This Letter of Agreement has been drawn in two originals in English all texts being equally valid.			
Signed in twofold in Rome,			
University of Rome "Tor Vergata"		Student	
Prof. Nicola Vittorio,		<name></name>	
Programme Coordinator of the Master in			
Astrophysics and Space Science			
Date:	Date:		











Annex IX - Joint Controllership Agreement

(To be signed separately before the start of the first course edition)











Annex X - Data Transfer Agreement

(To be signed separately before the start of the first course edition)











<u>Annex XI - List of Compulsory and Elective Course</u> Modules

Compulsory Course Modules

S1: UNITOV

- Mathematical Methods (8 ECTS), Prof. M. Migliaccio
- Modern Astrophysics (6 ECTS), Prof. G. Bono
- Radiative Processes (6 ECTS), Prof. M. Migliaccio
- Quantum Mechanics (8 ECTS), Prof. A. Salvio

S2: UB

- Experimental Gravitation (6 ECTS), Prof. C. Lämmerzahl
- Introduction to Cosmology (6 ECTS), Prof. V. Perlick
- Introduction to General Relativity (9 ECTS), Prof. E. Hackmann
- Science, Astronomy & Explorarory Missions (3 ECTS), Prof. C. Lämmerzahl

S2: UBG

- Spectroscopy of Astrophysical Plasmas (6 ECTS), Prof. L.Č. Popović
- Introduction to Active Galactic Nuclei (6 ECTS), Prof. D. Ilić
- Physics of Interstellar Matter (6 ECTS), Prof. D. Urošević
- Computational Astrobiology (6 ECTS), Prof. A. Kovačević

S2: UCA

- Astronomical Optics (6 ECTS), Prof. M. Carbillet, P. Martinez, S. Robbe, and M.Turconi
- Astronomical Techniques (6 ECTS), Prof. E. Aristidi and F. Martinache
- Helio and Asteroseismology (6 ECTS), Prof. L. Bigot, O. Creevey, and Th. Corbard
- Stellar Atmospheres for Helio and Asteroseismology, Modelisation (4 ECTS), Prof. M. Faurobert and G. Nicolini
- Space Plasmas: from the Sun to Planet (2 ECTS), Dr. Pierre Henri

Elective Course Modules

S2: UB

- Celestial Mechanics (6 ECTS), Prof. E. Hackmann
- Stellar Astrophysics (6 ECTS), Prof. M. Scharringhausen
- Hydrodynamics and Accretion Disks (6 ECTS), Prof. C. Lämmerzahl
- Space Telescopes (3 ECTS), Prof. C. Lämmerzahl











S2: UBG

- Gravitation and Cosmology (6 ECTS), dr. P. Jovanović
- Supernovae and their Remnants (6 ECTS), Prof. B. Arbutina
- Introduction to Nucleosynthesis and Particle Astrophysics (6 ECTS), Prof. T. Prodanović
- Small Solar System Objects (6 ECTS), Prof. B. Novaković
- Dynamics of Cosmic Plasma (6 ECTS), Dr D. Onić

S2: UCA

- Atmospheric Optics (3 ECTS), Prof. A. Ziad
- Statistical Methods and Inverse Problems (3 ECTS), Prof. D. Mary, M. Carbillet
- Experimental Interferometric Recombination with Astro-Photonics (3 ECTS), Prof. F. Martinache and N. Cvetojevic
- Exoplanet Detection (3 ECTS), Prof. D. Mary
- Observing the Planet-forming Region in Proto-Planetary Disks (3 ECTS), Prof. A. Matter and B. Lopez
- Exoplanet Characterization (3 ECTS), Prof. O. Creevey, L. Bigot, T. Guillot, and A. Chiavassa

S3: UTOV

- Stellar Structure and Evolution (6 ECTS), Prof. G. Bono
- Advanced Cosmology (6 ECTS), Prof. N. Vittorio
- Clusters of Galaxies (6 ECTS), Prof. P. Mazzotta
- Black Holes and Galaxies (6 ECTS), Prof. F. Tombesi
- Gravitational Physics (6 ECTS), Dr. A. Rocchi and R. Peron
- Gravitational Waves (6 ECTS), Prof. V. Fafone
- Habitability and Astrobiology (6 ECTS), Prof. A. Balbi
- Exoplanets (6 ECTS), Prof. L. Mancini
- Space Weather (6 ECTS), Prof. F. Berrilli
- Space Science (6 ECTS), Dr. D. Del Moro
- Planetary Sciences & Space Missions (6 ECTS), Dr. D. Capaccioni
- Numerical Methods for Astrophysics (6 ECTS), Dr. H. Boudin

S3: UB

- Advanced General Relativity (6 ECTS), Prof. C. Lämmerzahl
- Black Holes (6 ECTS), Prof. C. Lämmerzahl
- Gravitational Lensing (6 ECTS), Dr. V. Perlick
- Remote Sensing (3 ECTS), Prof. A. Bracher
- Geodesy (6 ECTS), Prof. C. Lämmerzahl
- Global Navigation Satellite System (3 ECTS), Prof. C. Lämmerzahl
- Philosophy of Cosmology, Space and Space Travel (3 ECTS), Prof. C. Lämmerzahl, N. Sieroka











S3: UBG

- Astroinformatics Astrostatistics and Machine Learning in Astronomy (6 ECTS), Prof. A. Kovačević
- Astrophysical Data Reduction and Analysis Techniques (6 ECTS), Prof. D. Ilić, Dr. D. Onić
- Line Shapes in Astrophysics (6 ECTS), Prof. L. Popović
- Gravitational Lenses (6 ECTS), Dr. P. Jovanović
- Big Data in Space Science (6 ECTS), Prof. L. Popović, Prof. A. Kovačević, Prof. D. Ilić
- Space Robotics (6 ECTS), Dr. A. Rodić
- Aerodynamics and Planetary Atmospheres (6 ECTS), Dr. Dušan Marčeta
- Material Characterization in Space (6 ECTS), Dr. R. Žikić
- Astrodynamics and Space Missions (6 ECTS), Dr. Dušan Marčeta
- Earth Ionosphere: Theory and Observations (6 ECTS), Dr. A. Nina

S3: UCA

- Active Galactic Nuclei and Star Formation in Galaxies (6 ECTS), Prof. N. Nesvadba
- Build a Nanosatellite! (6 ECTS), Prof. F. Millour, G. Metris, L. Rolland, L. Del'Ece, S. Otttogali, and Th. Viard
- The Bepi-Colombo Mission (6 ECTS), Prof. A. Fienga
- The JUICE JUpiter ICy moons Explorer Mission (6 ECTS), Prof. A. Fienga
- Free Space Laser Links for Space Applications (6 ECTS), Prof. J. Chabé
- MICROSCOPE Metrology and Dynamics in the Earth's Environment to Test Gravitation (6 ECTS), Prof. G. Metris
- Relativistic Gravitation and Astrophysics (6 ECTS), Prof. B. Chauvineau
- Fourier Optics (3 ECTS), Prof. E. Aristidi
- Formation & Evolution of Galaxies (6 ECTS), Prof. E. Slezak
- Numerical Methods (3 ECTS), Prof. G. Niccolini
- Science Mission & Spacecraft Conceptual Design (6 ECTS), Prof. Roser