

REALMATHS CONSORTIUM
INTERNATIONAL JOINT MSc PROGRAMME IN
MATHEMATICS FOR REAL WORLD APPLICATIONS

CONSORTIUM AGREEMENT

FOR THE INTERNATIONAL JOINT MSc PROGRAMME IN

“REALMATHS”

MATHEMATICS FOR REAL WORLD APPLICATIONS

AND THE AWARD OF A DEGREE BY ALL THE PARTNERS

INTAKES
2025 – 2026 – 2027

The present

**Consortium Agreement
for the International Joint MSc Programme in
Mathematics for Real World Applications**

(Hereinafter referred to as the “**Consortium Agreement**” or the “**Agreement**”)

is made and entered into force by and between

Università degli Studi dell’Aquila / University of L’Aquila (Italy)

(Hereinafter also referred to as “UAQ” or **Coordinating Institution**)

and the Organisations from the list below which will sign the Agreement by the end of 2024:

Vysoké učení technické v Brně / Brno University of Technology (Czech Republic)

(Hereinafter also referred to as “BUT”)

Leibniz Universität Hannover / Leibniz University Hannover (Germany)

(Hereinafter also referred to as “LUH”)

Politechnika Gdańska / Gdańsk University of Technology (Poland)

(Hereinafter also referred to as “Gdańsk Tech”)

Politechnika Śląska w Gliwicach / Silesian University of Technology (Poland)

(Hereinafter also referred to as “SUT”)

Uniwersytet Śląski w Katowicach / University of Silesia in Katowice (Poland)

(Hereinafter also referred to as “US”)

Universidade de Aveiro / University of Aveiro (Portugal)

(Hereinafter also referred to as “UA”)

Karlstads universitet / Karlstad University (Sweden)

(Hereinafter also referred to as “KAU”)

Kwame Nkrumah University of Science and Technology (Ghana)

(Hereinafter also referred to as “KNUST”)

Харківський національний університет імені В. Н. Каразіна /

V.N. Karazin Kharkiv National University (Ukraine)

(Hereinafter also referred to as “KhNU”)

Київський національний університет імені Тараса Шевченка /

Taras Shevchenko National University of Kyiv (Ukraine)

(Hereinafter also referred to as “TSNUK”)

Львівський національний університет імені Івана Франка /

Ivan Franko National University of Lviv (Ukraine)

(Hereinafter also referred to as “IFNUL”)

Національний університет «Львівська політехніка»
Lviv Polytechnic National University (Ukraine)
(Hereinafter also referred to as “LPNU”)

Одеський національний університет імені І. І. Мечникова /
Odesa National I.I. Mechnikov University (Ukraine)
(Hereinafter also referred to as “ONU”)

Двнз ‘Ужгородський Національний Університет’
State University ‘Uzhhorod National University’ (Ukraine)
(Hereinafter also referred to as “UzhNU”)

Đại học Tôn Đức Thắng / Ton Duc Thang University (Vietnam)
(Hereinafter also referred to as “TDTU”)

(Hereinafter also individually referred to as the “**Consortium Institution**” or the “**Party**” and jointly referred to as the “**RealMaths Consortium**” or the “**Consortium**” or the “**Parties**”)

The *RealMaths Consortium* hereby have agreed as follows:

Preamble

This agreement is a follow-up to the *Consortium Agreement for the International Double MSc Degree in “Mathematics for Real World Applications” (cohorts 2022–2024)*. In this context, it is noteworthy that UAQ has been offering Double MSc programmes in the area of “*Applied and Interdisciplinary Mathematics*” in conjunction with Gdańsk Tech since the 2006-cohort and with BUT since the 2007-cohort.

Over the years, the Consortium has been expanding to include the following Partner Organisations:

- Founding Partners:
 - University of L’Aquila (UAQ),
 - Brno University of Technology (BUT),
 - Gdansk University of Technology (Gdańsk Tech),
 - University of Silesia in Katowice (US),
 - Ivan Franko National University of Lviv (IFNUL);
- From 2018 to 2021-cohort:
 - V.N. Karazin Kharkiv National University (KhNU),
 - Taras Shevchenko National University of Kyiv (TSNUK),
 - Karlstad University (KAU),
 - Odessa National I.I. Mechnikov University (ONU),
 - University of Aveiro (UA),
 - National Institute for Mathematical Sciences (NIMS),
 - Kwame Nkrumah University of Science and Technology (KNUST),
 - York University (YU);
- From 2022-cohort:
 - Lviv Polytechnic National University (LPNU),
 - State University ‘Uzhhorod National University’ (UzhNU),

- Kwame Nkrumah University of Science and Technology (KNUST),
- York University (YU);
- From 2022-cohort:
 - Lviv Polytechnic National University (LPNU),
 - State University ‘Uzhhorod National University’ (UzhNU),
 - Ton Duc Thang University (TDTU),
 - Silesian University of Technology (SUT).

As from the 2022 cohort, the consortium institutions have decided to adopt the new name *RealMaths Consortium*.

The present Agreement defines the terms that govern the relations between the consortium institutions by establishing their rights and obligations, and it lays down the procedures to be followed for a successful implementation of the International Joint MSc Programme in *Mathematics for Real World Applications* (hereinafter referred to as *RealMaths Programme*).

Article 1 – Objectives

Mathematics is omnipresent in real-world applications. It can be found in a tool for the optimisation of traffic flow, for instance, or in the design and programming of supply chains, but also in the efficient development of a new drug treatment, in the planning of a vaccine campaign, in the design of a chemical reactor, in web security, computer graphics, cell-phone communications, and so forth. However, quite often researchers from “applied” disciplines make a rather “naïve” use of mathematics, without fully exploiting its depth and power to model and describe very complex situations.

While applied mathematics has a longstanding history and tradition in classically related fields such as physics and engineering, it was only in recent years that research scientists started to rely on applied mathematicians to develop more refined and adequate models and techniques to be used in real-world applications. In actual fact, the past 20 years have seen an explosion of new mathematical tools used in biology, medicine, social sciences, material sciences, manufacturing, artificial intelligence, big data. Higher education has started only recently to formulate such recent developments in the framework of well-structured study programmes encompassing both mathematics and real-world applications. This is partly due to academic research being still structured, to some extent, in separate compartments, with the likely consequence that a very useful “applied” mathematical result may have poor chances to be published in a renowned mathematical journal (unless it features truly innovative maths, no matter what the application is).

On the other hand, society needs the development of deep, sound, and efficient new mathematical tools in a whole variety of practical situations. Some academic communities are starting to get the point that the societal impact of mathematics is more and more significant in their research, often using the interdisciplinary power of mathematics to describe seemingly unrelated phenomena. Consequently, the field of mathematics in real-world applications is growing and close to being raised to the status of a new interdisciplinary field.

The International Joint MSc Programme in *RealMaths* aims at being a forerunner in this sense. We are an academic programme providing both advanced modern mathematics and a strong focus on real-world applications. The programme takes advantage of the very diverse skills and competencies shared by the partners. Such a diversity defines the programme’s aims and objectives, in that it allows to provide complementary skills combining mathematics and other applied disciplines. To perform this task, the *RealMaths Programme* is structured into two years spent in two different universities in two different countries at least, in which the student is enrolled at the same time.

Our set of curricula covers a broad range of topics, mostly depending on the partners involved. After having gained an adequate and modern methodological preparation for the study and development of mathematical models in the first part of the programme, candidates will then have the opportunity to choose their second-year destination depending on the specialisation offered by the institutions involved.

Our graduates will possess the proper mindset of an applied mathematician combined with the capability to dialogue with experts from other sectors. Depending on the study path they will follow, students will be ready to undertake a PhD in Applied Mathematics as well as to start a career in businesses, industries, and governments.

The *RealMaths Programme* is designed for completion in two academic years of full-time study and is taught in English. Upon successful completion of the *RealMaths Programme*, students are awarded a joint degree or multiple degrees by the Consortium Institutions involved in their curriculum.

Article 2 – Definitions

1. **Consortium Institution:** Each Organisation signatory to this agreement (closing date for signatures: 31st December 2024) as well as each Organisation admitted to the *RealMaths Consortium* by signing an Association Annex (see art. 4).
2. **Partner Student:** A student who firstly enrolls at a Consortium Institution and afterwards is admitted to a specific study path within the *RealMaths Programme* in conformity with the bilateral/multilateral Implementing Agreement (see art. 7) signed between the two or more Consortium Institutions involved, and valid for that specific cohort.
3. **Consortium Student:** A student admitted to the *RealMaths Programme* in conformity with the procedure set out in the call for applications published annually by the Consortium. S/he will spend at least the first semester of the joint programme at the Coordinating Institution. By the end of the first semester, the Consortium allocate each Consortium Student a specific bilateral/multilateral Implementing Agreement and, as a consequence, a specific study path.

Article 3 – Joint governing bodies, coordinating institution and committees

All governing bodies established by this Agreement and herein described, which have responsibility for the various aspects of the *RealMaths Programme*, shall be subject to the internal governance and management arrangements and oversight of the respective Consortium Institution.

The Consortium is coordinated by the University of L'Aquila (hereinafter called **Coordinating Institution**) and represented by its legal representative.

The legal representative of the Coordinating Institution appoints a **Consortium Coordinator**.

The legal representative of each Consortium Institution appoints a representative (hereinafter called **Local coordinator**). The Consortium Coordinator acts as Local coordinator of the Coordinating Institution. The Consortium Coordinator appoints a **Deputy Consortium Coordinator** and an **Assistant Consortium Coordinator**. Each local coordinator may also appoint a **Deputy Local Coordinator** and an **Assistant Coordinator**.

The Consortium is governed by the **Board of Coordinators**, which consists of the Local Coordinators and is chaired by the Consortium Coordinator. Invited members of the Board of Coordinators are the Deputy Consortium Coordinator and the Assistant Consortium Coordinator.

In its first meeting the Board of Coordinators establishes a **Management Board**, chaired by the Consortium Coordinator and including three additional Local coordinators from the Consortium Institutions. Subsequently, every year in May the Board of Coordinators shall meet to elect the new Management Board, which remains in office until the end of April of the following year.

The Consortium Coordinator has overall coordination responsibility and represents the Consortium.

All decisions of the Board of Coordinators shall be taken by qualified majority, i.e. with at least a number of votes in favour which is strictly greater than half of the consortium institutions. As for the Management Board, all decisions must be made unanimously. In the event that a decision obtains the vote of the majority but not unanimity, the Consortium Coordinator must forward the discussion on that point to the Board of Coordinators.

The Management Board is responsible for managing any academic and technical issues within the Consortium. To facilitate the participation of all institutions, contacts by conference calls will be in

principle favoured to traditional meetings. The decisions reached by the Management Board are then forwarded to the Board of Coordinators in order to be disseminated into the Consortium Institutions.

The Coordinating Institution administers any financial issues within the Consortium. The Department of Information Engineering, Computer Science and Mathematics of UAQ (coordinating department, acronym DISIM), through the Consortium Coordinator, is responsible for administering any common finances, and is also responsible for receiving incomes and paying expenses.

A **Project Manager** and a **Central Coordination Office** will be appointed for the Consortium by the Coordinating Institution and financed via the student participation costs. Primary responsibility for the recruitment of the Project Manager lies with the Consortium Coordinator and the Project Manager will report directly to the Consortium Coordinator and the Board of Coordinators. The Project Manager will have responsibility for the day-to-day operational management of the Consortium, strategic management, and development.

Article 4 – Admission of a new Consortium Institution

The Consortium, through the Board of Coordinators, shall consider requests from a potential organisation to become a new Consortium Institution. When approved, an Association Annex will be signed between the representative of the new Consortium Institution and the Coordinating Institution.

Article 5 – Student application, selection, and admission

Student application, selection and admission is diversified between Partner and Consortium Students.

As for Partner Students, details are defined in the specific bilateral Implementing Agreement (see art. 7).

As for Consortium Students:

- The Management Board shall be responsible for the annual selection. The application procedure for the *RealMaths Programme* can be organised and implemented partly jointly by the Consortium and other programmes in Mathematical Sciences coordinated by the University of L'Aquila (*InterMaths Programme, MathMods Programme*).
- The Central Coordination Office, on behalf of the Consortium, shall organise, receive, and process all applications for admission to the *RealMaths Programme*.
- The Management Board shall be responsible for setting and reviewing the admission criteria according to national law and regulations. Due consideration shall be taken to national requirements for admission of students. None of the consortium institutions is obliged to admit a student in conflict with national legal requirements for admission.
- The Central Coordination Office shall be responsible for drawing-up the list of admitted students according to the timing agreed by the Management Board and shall inform the Consortium Institutions accordingly in a timely manner.
- The Consortium Institutions shall decide by the end of the first semester in mutual agreement the distribution of students among the different bilateral/multilateral implementing agreements allowing the admission of Consortium students after taking into account the students' preferences, the sustainability of the network and other relevant factors, as in particular the students' academic background.

Consortium institutions will do their best to aid students in obtaining any necessary visa and residence permits before their studies commence. It is the responsibility of all consortium institutions to ensure that the authorisations required for visa and residence permits are in order before the consortium institution permits the student's activities in the *RealMaths Programme* to take place, in accordance with national regulations.

Article 6 – Student participation costs and financial budget

Participation costs are defined as all costs related to student participation in the *RealMaths Programme* for the standard duration, including *contribution to the consortium costs* and *tuition fees*.

Consortium costs take the form of a unit cost per enrolled student and are intended to cover part of the costs linked to the implementation of the *RealMaths programme*. They are the same for all students and

do not depend on the specific Implementing Agreement/study path. The unit costs include the cost of the Project Manager and the Central Coordination Office, promotion, dissemination, organisational and administrative costs at the Coordinating Institution, and all other costs necessary to implement a successful programme, including any scholarships. For each academic cohort, based on all the information collected, the Management Board first calculates the value of the consortium costs. Then, taking into account the information received from the Coordinating Institution about the financial budget needed to run the cohort, the Management Board will grant students a partial waiver and fix the student *contribution to the consortium costs*.

Unless otherwise specified, the Coordinating Institution and all the other parties totally waive local *tuition fees*. The student *tuition fee* is maintained as low as possible and mainly used to pay the cost of the Abruzzo regional fee and the Italian stamp duty during the two-year programme. In case of any additional participation cost due to any local compulsory contribution to the consortium cost or local tuition fee, that must be specified in the related Implementing Agreement (see Art. 7), indicating the amount of the additional cost where possible.

While Consortium Students pay the participation costs (i.e. both the contribution to the consortium costs and the tuition fees), Partner Students do not contribute to the consortium costs. That corresponds to saying that this category of students pays tuition fees only.

Subject to compliance with the rules in place in their own countries, the parties are committed to finding the necessary international, national, and regional tools to achieve the goals of this Agreement. The parties will do their best to find economic support for the *RealMaths Programme*, before suspending the student's exchange programme. If adequate funding is not available, students organise and finance their own accommodation, insurance, visa, and travel costs while undertaking the *RealMaths Programme*.

Article 7 – Implementing Agreement

Two or more Consortium Institutions from at least two different countries may propose - under the common framework established in this Consortium Agreement - a bilateral/multilateral **Implementing Agreement**, defining details about:

1. the institution that coordinates the specific Implementing Agreement (when the Coordinating Institution is involved, the two roles coincide);
2. application, selection, and admission of “Partner Students”;
3. limits on the number of admitted “Partner” and “Consortium Students”;
4. contribution to participation costs;
5. structure of the joint study path, mobility, and study plan;
6. language policy;
7. credit transfer policy between the signatory partners;
8. degree-awarding and Diploma Supplement.

Consortium Students are possible only if the Coordinating Institution is involved in the specific Implementing Agreement. The proposed study plans, namely the set of course units that a student must pass successfully to obtain a master's degree in the selected study path, are included in each Implementing Agreement and shall provide information on the final master's thesis. Students shall work on their graduation thesis preferably co-tutored by two professors or researchers, one from each Consortium Institution signatory to the Implementing Agreement.

Master's theses shall be written in English. Thesis defences shall be conducted in English as well and shall be based on the regulations in use at the involved Consortium Institutions.

All students will carry out their Joint MSc Programme based on one of the Implementing Agreements valid for their specific cohort.

Each proposed Implementing Agreement is examined and approved by the Management Board. Afterwards, the involved Consortium Institutions are free to sign it.

Article 8: Degree awarding and Diploma Supplement

The institution that coordinates the specific Implementing Agreement will keep the full student's record to monitor their progress and for any other purpose that should require it. The host institutions will provide the corresponding semester qualifications.

Joint degrees are encouraged, if national legislation allows. Their commitment will be to achieve the objective of a joint degree award for each specific Implementing Agreement. In any case, the successful completion of the joint Programme proposed in the Implementing Agreement leads to the award of either a joint degree or multiple degrees: the degree will be awarded by the universities where the graduate acquires 30 ECTS during the master's programme. In case a student's path includes two institutions from the same country, which prevents the issuance of the degree by both of them, the Implementing Agreement will clarify which institution will not issue the degree.

The institution that coordinates the specific Implementing Agreement will keep records of all the student's transcripts of records and will be administratively responsible for issuing the related joint diploma supplement, which will be signed by its Registrar. Concerning the jointly awarded degree, a single parchment, signed by the legal representative of each university involved, will be issued to each successful student by the institution that coordinates the specific Implementing Agreement on behalf of the relevant joint degree-awarding Consortium Institutions.

Article 9 – Student agreement

The *RealMaths Programme* is designed for completion in two academic years of full-time study. At the beginning of their studies, students shall sign an agreement with the local Coordinator of the institution that coordinates the specific Implementing Agreement, which contains important information about the obligations and responsibilities they assume when they are accepted to programme. More specifically, the agreement regulates the duration of the whole *RealMaths Programme*; the structure of the joint study path, mobility, and study plan; attendance and responsibility for health and social insurance; circumstances that can lead to automatic exclusion from the *RealMaths Programme*, Consortium administrative fees and contribution to participation costs.

Students who are unable to complete their studies before the deadlines set in the student agreement may make a request to the Management Board for an extension of up to a maximum of one additional academic year.

Article 10 – Exchange of good practices. Joint database and website.

Each Consortium Institution agrees to maintain a regular exchange of information and teaching materials concerning this agreement with all the other Consortium Institutions, as well as to share and transfer within the Consortium any best practices and innovative approaches in the fields of education.

The Coordinating Institution will keep all the student's records in order to monitor their overall progress and for any other related purpose that should require it.

The Coordinating Institution is responsible for the joint website of the Consortium. Every year each Consortium Institution will provide the Coordinating Institution with a complete course catalogue offered at their Institution, as it has been defined in the implementing agreements concluded for each cohort.

Article 11 – Quality Assurance

The Board of Coordinators is responsible for the overall quality and standards of the *RealMaths Programme*. It shall monitor compliance of Consortium Institutions with this Agreement, and it shall be responsible for ensuring that the *RealMaths Programme* is delivered to the highest academic standards.

Quality assurance shall be based on both internal and external assessment measures, involving the relevant stakeholders in the *RealMaths Programme*.

Article 12 – RealMaths Programme information

Each Consortium Institution shall ensure that the catalogue of their own course units is up to date and complete, and that they are communicated to the students in a timely fashion. In addition, each Consortium Institution shall ensure that students receive all relevant information and instructions in a timely fashion so as to facilitate a successful study period at its premises.

Article 13 – Promotion of the programme

Each Consortium Institution agrees to use its name and logo on all promotional material, programme literature and other documents related to the programme.

Promotion of the programme is overseen by the Management Board, which validates the contents of any communication document, including information published on the partners' websites.

Article 14 – Intellectual Property Rights

Each Consortium Institution hereby grants to the other Consortium Institutions a non-exclusive, non-transferable, royalty-free license to use their respective names and logos including trademarks, solely for the purpose of performing their obligations and exercising their rights under this Consortium Agreement. Each instance of such use of the names and logos shall be in such form as agreed with the consortium institution in question.

Article 15 – Confidentiality

(a) All data and other documents and information (other than promotional material) supplied in writing ("Supplied Material") by any Consortium Institution (the "Supplying Party") to another Consortium Institution (the "Receiving Party") under this Agreement and exhibiting an appropriate "Confidential" or "Proprietary" legend shall remain the property of the Supplying Party and shall be treated as confidential, both during the performance of this Agreement and for an indefinite period thereafter.

The Receiving Party shall not, during the term of this Agreement or at any time thereafter, use any confidential Supplied Material or disclose any confidential Supplied Material to any third party save to the extent as may be reasonably necessary for the fulfilment of the Receiving Party's duties and obligations under this Agreement.

(b) If the Receiving Party becomes aware that it will be required, or is likely to be required, to disclose confidential information in order to comply with applicable laws or regulations or with a court or administrative order, it shall, to the extent allowed by the law and prior to such disclosure, notify the Supplying Party, and comply with the Supplying Party's reasonable instructions to protect the confidentiality of the information.

(c) The obligations mentioned in paragraphs (a) and (b) shall not apply for the disclosure or use of confidential information, if and in so far as the Receiving Party can show that:

- The confidential information has become or becomes publicly available by means other than a breach of the recipient's confidentiality obligations.
- The Supplying Party subsequently informs the Receiving Party that the confidential information is no longer confidential.
- The confidential information is communicated to the Receiving Party without any obligation of confidentiality by a third party who is to the best knowledge of the Receiving Party in lawful possession thereof and under no obligation of confidentiality to the Supplying Party.
- The disclosure or communication of the confidential information is foreseen by provisions of this Consortium Agreement.
- The confidential information was independently developed by the Receiving Party without any use or reference to the received confidential information.
- The confidential information was already known to the Receiving Party prior to its disclosure.

(d) The confidential information disclosed orally must be in writing, within eight (8) days after its disclosure.

(e) Each consortium institution shall process the personal data obtained in the course of the execution of

this Agreement in accordance with its internal rules and regulations.

Article 16 – Duration and validity of the agreement

The present agreement will enter into force when it is signed both by the legal representative of the Coordinating Institution and three Consortium Institutions, at least. An Organization that shall not have signed the present agreement before the **end of December 2024** will automatically be excluded. Nevertheless, the Coordinating Institution has the opportunity to sign an Association Annex with any of the Partner Organisations of the former *RealMaths Consortium* listed in the Preamble without asking the Board of Coordinators for approval, provided that the agreement is finalized before the end of April 2025. The *RealMaths Programme* will be run according to this agreement for the academic cohorts 2025, 2026 and 2027 (three cohorts).

Proposed changes or amendments to this agreement by a Consortium Institution shall only be considered valid if they are submitted in writing and signed by an authorized representative of that Consortium Institution. Moreover, the proposed changes or amendments must also be approved by all the other Consortium Institutions.

The agreement remains valid until the Consortium Institutions agree to abolish it commonly. Should a single Consortium Institution wish to withdraw from the agreement, it will nonetheless have to guarantee that any student previously enrolled at their institution will be allowed to continue their studies and graduate within a reasonable amount of time. Should the University of L'Aquila wish to withdraw from the Agreement, the Board of Coordinators will appoint a new Coordinating Institution from among the Consortium Institutions.

All Consortium Institutions are eligible to use the acronym “RealMaths” and the logo that appears on the first page of the present document for promoting, or any other purposes concerning activities, connected to this Agreement. Upon expiry of this Consortium Agreement, the website www.realmaths.eu, the acronym “RealMaths” as well as the logo that appears on the first page of this document and used both for the *RealMaths Programme* and for the Consortium name remain a property of the Coordinating Institution.

Any renewal will have to be discussed by the Board of Coordinators starting from June 2027 and the final version of the new agreement will have to be ready by October 2027.

Article 17 – Dispute settlements

Any dispute among the Consortium Institutions will seek an amicable and concerted solution. If an agreement is not reached, relevant competent bodies will remedy the dispute for each Consortium Institution.

Article 18 – Signature pages

Attached to this Agreement are signature pages. Each individual signature page will be signed by the legally authorised representative of the respective consortium institution together with the legally authorised representative of the Coordinating Institution, thus agreeing to enter into this Agreement. Such signature pages are considered as part and parcel of this Agreement.

The signature page for each individual consortium institution will be signed in nineteen original copies. At the beginning of January 2025, once the Coordinating Institution has received and collected all relevant signature pages, it has to assemble a number of copies of the signed Agreement equal to the number of Consortium Institutions and deliver them to each Consortium Institution, together with any unused copies of the signature page received.

Partner Institution 1 / Coordinating Institution

Università degli Studi dell'Aquila / University of L'Aquila, represented for the purpose hereof by Prof. Edoardo ALESSE, Rector, established in L'Aquila (Italy), acting as its legal authorised representative, hereby consents to become a Consortium Institution to the Consortium Agreement for the International Joint MSc Programme in Mathematics for Real World Applications (RealMaths), Cohorts 2025 – 2026 – 2027 and accepts in accordance with the provisions of the aforementioned Agreement all the rights and obligations of the Coordinating Institution.

Done in nineteen original copies.

Name of Legal Entity: Università degli Studi dell'Aquila, L'Aquila (Italy)

Name of legally authorised representative: Prof. Edoardo ALESSE

Function of legally authorised representative: Rector

Date: 20.03.2024

Signature of legally authorised representative: _____

Stamp of the organisation:



Partner Institution 3

Vysoké učení technické v Brně / Brno University of Technology, represented for the purpose hereof by Assoc. Prof. Ladislav JANÍČEK, Rector, established in Brno (Czech Republic), acting as its legal authorised representative, hereby consents to become a Consortium Institution to the Consortium Agreement for the International Joint MSc Programme in Mathematics for Real World Applications (RealMaths), Cohorts 2025 – 2026 – 2027 and accepts in accordance with the provisions of the aforementioned Agreement all the rights and obligations of a Consortium Institution.

Done in nineteen original copies.

Name of Legal Entity: Vysoké učení technické v Brně / Brno University of Technology, Brno (Czech Republic)

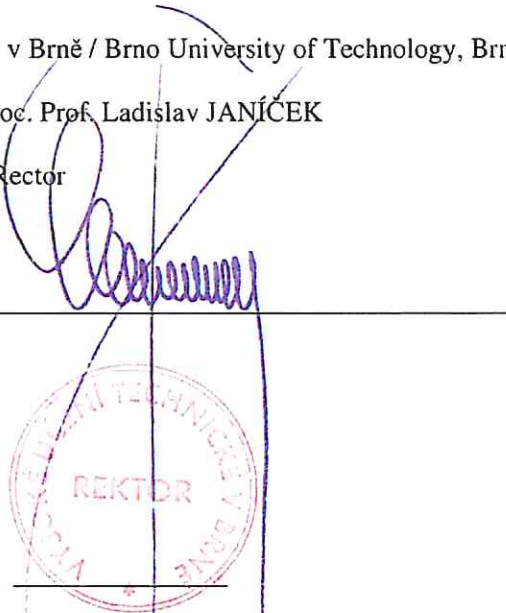
Name of legally authorised representative: Assoc. Prof. Ladislav JANÍČEK

Function of legally authorised representative: Rector

Date: 31.10.2024

Signature of legally authorised representative: _____

Stamp of the organisation: _____



A handwritten signature in blue ink is written over a red circular stamp. The stamp contains the text 'VYSOKÉ UČENÍ TECHNICKÉ V BRNĚ' around the perimeter and 'REKTOR' in the center. The signature is written over a horizontal line.

Coordinating Institution

Name of Legal Entity: Università degli Studi dell'Aquila, L'Aquila (Italy)

Name of legally authorised representative: Prof. Edoardo ALESSE

Function of legally authorised representative: Rector

Date: 20 DIC. 2024

Signature of legally authorised representative: _____

Stamp of the organisation: _____



A handwritten signature in blue ink is written over a horizontal line.

Partner Institution Leibniz Universität Hannover / Leibniz University Hannover (Germany)

Leibniz Universität Hannover / Leibniz University Hannover, represented for the purpose hereof by Prof. Dr. Volker Epping, President, established in Hannover (Germany), acting as its legal authorised representative, hereby consents to become a Consortium Institution to the Consortium Agreement for the International Joint MSc Programme in Mathematics for Real World Applications (RealMaths), Cohorts 2025 – 2026 – 2027 and accepts in accordance with the provisions of the aforementioned Agreement all the rights and obligations of a Consortium Institution.

Done in nineteen original copies.

Name of Legal Entity: Leibniz Universität Hannover / Hannover (Germany)

Name of legally authorised representative: Prof. Dr. Volker Epping

Function of legally authorised representative: President

Date: 3.12.24

Signature of legally authorised representative: _____

Stamp of the organisation:

Prof. Dr. iur. Volker Epping
Präsident
**LEIBNIZ
UNIVERSITÄT HANNOVER**
Welfengarten 1
30167 Hannover

Coordinating Institution

Name of Legal Entity: Università degli Studi dell'Aquila, L'Aquila (Italy)

Name of legally authorised representative: Prof. Edoardo ALESSE

Function of legally authorised representative: Rector

Date: 20 DIC. 2024

Signature of legally authorised representative: _____

Stamp of the organisation:



Partner Institution _____

Politechnika Gdańska / Gdańsk University of Technology, represented for the purpose hereof by Prof Krzysztof Wilde, Rector, established in Gdańsk (Poland), acting as its legal authorised representative, hereby consents to become a Consortium Institution to the Consortium Agreement for the International Joint MSc Programme in Mathematics for Real World Applications (RealMaths), Cohorts 2025 – 2026 – 2027 and accepts in accordance with the provisions of the aforementioned Agreement all the rights and obligations of a Consortium Institution.

Done in nineteen original copies.

Name of Legal Entity: **Politechnika Gdańska** / Gdańsk University of Technology

Name of legally authorised representative: Prof. Krzysztof Wilde

Function of legally authorised representative: Rector

Date: 22,11,2024

Signature of legally authorised representative: _____

Rector
Gdańsk University of Technology

Prof. Krzysztof Wilde

Stamp of the organisation: _____



Coordinating Institution

Name of Legal Entity: Università degli Studi dell'Aquila, L'Aquila (Italy)

Name of legally authorised representative: Prof. Edoardo ALESSE

Function of legally authorised representative: Rector

Date: 20 DIC. 2024

Signature of legally authorised representative: _____



Stamp of the organisation: _____





Silesian University
of Technology

Partner Institution _____

Politechnika Śląska/Silesian University of Technology, represented for the purpose hereof by Prof. dr hab. inż. Marek Pawełczyk, Rector, established in Gliwice (Poland), acting as its legal authorised representative, hereby consents to become a Consortium Institution to the Consortium Agreement for the International Joint MSc Programme in Mathematics for Real World Applications (RealMaths), Cohorts 2025 – 2026 – 2027 and accepts in accordance with the provisions of the aforementioned Agreement all the rights and obligations of a Consortium Institution.

Done in nineteen original copies.

Name of Legal Entity: **Politechnika Śląska/Silesian University of Technology**, Gliwice (Poland)

Name of legally authorised representative: Prof. dr hab. inż. Marek Pawełczyk

Function of legally authorised representative: Rector

RECTOR

Date: 24 GRU 2024

Prof. Marek Pawełczyk PhD, DSc

Signature of legally authorised representative: _____

Stamp of the organisation:

UMOWĘ SPRAWDZONO

mgr inż. Ksenia Ogrodnik

Coordinating Institution

Name of Legal Entity: Università degli Studi dell'Aquila, L'Aquila (Italy)

Name of legally authorised representative: Prof. Edoardo ALESSE

Function of legally authorised representative: Rector

Date: _____

Signature of legally authorised representative: _____

Stamp of the organisation:



Partner Institution - University of Silesia in Katowice

Uniwersytet Śląski w Katowicach / University of Silesia in Katowice, represented for the purpose hereof by prof. dr hab. Ryszard Koziółek, Rector, established in Katowice (Poland), acting as its legal authorised representative, hereby consents to become a Consortium Institution to the Consortium Agreement for the International Joint MSc Programme in Mathematics for Real World Applications (RealMaths), Cohorts 2025 – 2026 – 2027 and accepts in accordance with the provisions of the aforementioned Agreement all the rights and obligations of a Consortium Institution.


Done in nineteen original copies.

Name of Legal Entity: Uniwersytet Śląski w Katowicach / University of Silesia in Katowice, Katowice (Poland)

Name of legally authorised representative: Prof. dr hab. Ryszard Koziółek

Function of legally authorised representative: Rector

Date: 20-12-2024

Signature of legally authorised representative: 

Stamp of the organisation:




Coordinating Institution

Name of Legal Entity: Università degli Studi dell'Aquila, L'Aquila (Italy)

Name of legally authorised representative: Prof. Edoardo ALESSE

Function of legally authorised representative: Rector

Date: 2 DIC. 2024

Signature of legally authorised representative: 

Stamp of the organisation:



Partner Institution _____

Universidade de Aveiro/ University of Aveiro, represented for the purpose hereof by Artur Manuel Soares da Silva, Vice-Rector, established in Aveiro (Portugal), acting as its legal authorised representative, hereby consents to become a Consortium Institution to the Consortium Agreement for the International Joint MSc Programme in Mathematics for Real World Applications (RealMaths), Cohorts 2025 – 2026 – 2027 and accepts in accordance with the provisions of the aforementioned Agreement all the rights and obligations of a Consortium Institution.

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Name of Legal Entity: Universidade de Aveiro/ Aveiro (Portugal)

Name of legally authorised representative: Prof. Artur Manuel Soares da Silva

Function of legally authorised representative: Vice-Rector

Date: 6 November 2024

Signature of legally authorised representative: _____



Stamp of the organisation: _____



Coordinating Institution

Name of Legal Entity: Università degli Studi dell'Aquila, L'Aquila (Italy)

Name of legally authorised representative: Prof. Edoardo ALESSE

Function of legally authorised representative: Rector

Date: 20 DIC. 2024

Signature of legally authorised representative: _____



Stamp of the organisation: _____



Partner Institution _____

Karlstads Universitet / Karlstad University, represented for the purpose hereof by Prof. Jerker Moodysson, Vice Chancellor, established in Karlstad (Sweden), acting as its legal authorised representative, hereby consents to become a Consortium Institution to the Consortium Agreement for the International Joint MSc Programme in Mathematics for Real World Applications (RealMaths), Cohorts 2025 – 2026 – 2027 and accepts in accordance with the provisions of the aforementioned Agreement all the rights and obligations of a Consortium Institution.

Done in nineteen original copies.

Name of Legal Entity: Karlstads Universitet, Karlstad (Sweden)

Name of legally authorised representative: Prof. Jerker Moodysson

Function of legally authorised representative: Vice Chancellor

Date: 2024 11 17

Signature of legally authorised representative: _____

Stamp of the organisation:



Coordinating Institution

Name of Legal Entity: Università degli Studi dell'Aquila, L'Aquila (Italy)

Name of legally authorised representative: Prof. Edoardo ALESSE

Function of legally authorised representative: Rector

Date: 23 DIC. 2024

Signature of legally authorised representative: _____

Stamp of the organisation:





Partner Institution _____

Kwame Nkrumah University of Science and Technology, represented for the purpose hereof by **Prof. Rita Akosua Dickson**, Vice Chancellor, established in **Kumasi (Ghana)**, acting as its legal authorised representative, hereby consents to become a Consortium Institution to the Consortium Agreement for the International Joint MSc Programme in Mathematics for Real World Applications (RealMaths), Cohorts 2025 – 2026 – 2027 and accepts in accordance with the provisions of the aforementioned Agreement all the rights and obligations of a Consortium Institution.

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Name of Legal Entity: **Kwame Nkrumah University of Science and Technology, Kumasi (Ghana)**

Name of legally authorised representative: **Prof. Rita Akosua Dickson**

Function of legally authorised representative: **Vice Chancellor**

Date: 11/11/24

Signature of legally authorised representative: _____

Stamp of the organisation:

**VICE CHANCELLOR
KNUST - KUMASI**

Coordinating Institution

Name of Legal Entity: **Università degli Studi dell'Aquila, L'Aquila (Italy)**

Name of legally authorised representative: **Prof. Edoardo ALESSE**

Function of legally authorised representative: **Rector**

Date: 23 DIC, 2024

Signature of legally authorised representative: _____

Stamp of the organisation:



Partner Institution _____

Харківський національний університет імені В. Н. Каразіна / V.N. Karazin Kharkiv National University, represented for the purpose hereof by by Prof. Tetyana Kaganovska, Rector, established in Kharkiv (Ukraine), acting as its legal authorised representative, hereby consents to become a Consortium Institution to the Consortium Agreement for the International Joint MSc Programme in Mathematics for Real World Applications (RealMaths), Cohorts 2025 – 2026 – 2027 and accepts in accordance with the provisions of the aforementioned Agreement all the rights and obligations of a Consortium Institution.

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Name of Legal Entity: **Харківський національний університет імені В. Н. Каразіна** /

V.N. Karazin Kharkiv National University, Kharkiv (Ukraine)

Name of legally authorised representative: Prof. Tetyana Kaganovska

Function of legally authorised representative: Rector

Date: _____

Signature of legally authorised representative: _____

Stamp of the organisation: _____



Coordinating Institution

Name of Legal Entity: Università degli Studi dell'Aquila, L'Aquila (Italy)

Name of legally authorised representative: Prof. Edoardo ALESSE

Function of legally authorised representative: Rector

Date: 23 DIC. 2024

Signature of legally authorised representative: _____

Stamp of the organisation: _____





Partner Institution ____

Київський національний університет імені Тараса Шевченка / Taras Shevchenko National University of Kyiv, represented for the purpose hereof by **Prof. Volodymyr Bugrov, Rector**, established in **Kyiv (Ukraine)**, acting as its legal authorised representative, hereby consents to become a Consortium Institution to the Consortium Agreement for the International Joint MSc Programme in Mathematics for Real World Applications (RealMaths), Cohorts 2025 – 2026 – 2027 and accepts in accordance with the provisions of the aforementioned Agreement all the rights and obligations of a Consortium Institution.

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Name of Legal Entity: **Київський національний університет імені Тараса Шевченка / Taras Shevchenko National University of Kyiv (TSNUK)**

Name of legally authorised representative: Prof. **Volodymyr Bugrov**

Function of legally authorised representative: **Rector**

Date: _____

Signature of legally authorised representative: _____



Coordinating Institution

Name of Legal Entity: Università degli Studi dell'Aquila, L'Aquila (Italy)

Name of legally authorised representative: Prof. Edoardo ALESSE

Function of legally authorised representative: Rector

Date: 23.01.2024

Signature of legally authorised representative: _____



Partner Institution 16

Львівський національний університет імені Івана Франка / Ivan Franko National University of Lviv, represented for the purpose hereof by Prof. Volodymyr MELNYK, Rector, established in Lviv (Ukraine), acting as its legal authorised representative, hereby consents to become a Consortium Institution to the Consortium Agreement for the International Joint MSc Programme in Mathematics for Real World Applications (RealMaths), Cohorts 2025 – 2026 – 2027 and accepts in accordance with the provisions of the aforementioned Agreement all the rights and obligations of a Consortium Institution.

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Name of Legal Entity: Львівський національний університет імені Івана Франка / Ivan Franko National University of Lviv, Lviv (Ukraine)

Name of legally authorised representative: Prof. Volodymyr MELNYK

Function of legally authorised representative: Rector

Date: 28/11/24

Signature of legally authorised representative: _____

Stamp of the organisation:



Coordinating Institution

Name of Legal Entity: Università degli Studi dell'Aquila, L'Aquila (Italy)

Name of legally authorised representative: Prof. Edoardo ALESSE

Function of legally authorised representative: Rector

Date: 29 DIC. 2024

Signature of legally authorised representative: _____

Stamp of the organisation:



Partner Institution _____

Національний університет «Львівська політехніка» / Lviv Polytechnic National University, represented for the purpose hereof by Prof. Yurii Bobalo, Rector, established in Lviv (Ukraine), acting as its legal authorised representative, hereby consents to become a Consortium Institution to the Consortium Agreement for the International Joint MSc Programme in Mathematics for Real World Applications (RealMaths), Cohorts 2025 – 2026 – 2027 and accepts in accordance with the provisions of the aforementioned Agreement all the rights and obligations of a Consortium Institution.

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Name of Legal Entity: Національний університет «Львівська політехніка» / Lviv Polytechnic National University, Lviv (Ukraine)

Name of legally authorised representative: Prof. Yurii Bobalo

Function of legally authorised representative: Rector

Date: 08.11.2024

Signature of legally authorised representative: _____

Stamp of the organisation: _____



Coordinating Institution

Name of Legal Entity: Università degli Studi dell'Aquila, L'Aquila (Italy)

Name of legally authorised representative: Prof. Edoardo ALESSE

Function of legally authorised representative: Rector

Date: 08.11.2024

Signature of legally authorised representative: _____

Stamp of the organisation: _____



Partner Institution 18

Odessa National I.I. Mechnikov University / ONU (Ukraine), represented for the purpose hereof by Prof. Vyacheslav TRUBA Rector established in Odesa Ukraine acting as its legal authorised representative, hereby consents to become a Consortium Institution to the Consortium Agreement for the International Joint MSc Programme in Mathematics for Real World Applications (RealMaths), Cohorts 2025 – 2026 – 2027 and accepts in accordance with the provisions of the aforementioned Agreement all the rights and obligations of a Consortium Institution.

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Name of Legal Entity: Odessa National I.I. Mechnikov University / ONU, Odesa (Ukraine)

Name of legally authorised representative: Prof. Vyacheslav TRUBA=

Function of legally authorised representative: Rector

Date: 12.12.2024

Signature of legally authorised representative: _____

Stamp of the organisation:



Coordinating Institution

Name of Legal Entity: Università degli Studi dell'Aquila, L'Aquila (Italy)

Name of legally authorised representative: Prof. Edoardo ALESSE

Function of legally authorised representative: Rector

Date: 23 DIC. 2024

Signature of legally authorised representative: _____

Stamp of the organisation:



Partner Institution Uzhhorod National University

State University «Uzhhorod National University», represented for the purpose hereof by Rector Prof. Volodymyr Smolanka, established in Uzhhorod (Ukraine), acting as its legal authorised representative, hereby consents to become a Consortium Institution to the Consortium Agreement for the International Joint MSc Programme in Mathematics for Real World Applications (RealMaths), Cohorts 2025 – 2026 – 2027 and accepts in accordance with the provisions of the aforementioned Agreement all the rights and obligations of a Consortium Institution.

Done in nineteen original copies.

Name of Legal Entity: Uzhhorod National University (Ukraine)

Name of legally authorised representative: Prof. Volodymyr Smolanka

Function of legally authorised representative: Rector

Date: _____

Signature of legally authorised representative: _____

Stamp of the organisation: _____



Coordinating Institution

Name of Legal Entity: Università degli Studi dell'Aquila, L'Aquila (Italy)

Name of legally authorised representative: Prof. Edoardo ALESSE

Function of legally authorised representative: Rector

Date: 23 DIC. 2024

Signature of legally authorised representative: _____

Stamp of the organisation: _____



Partner Institution ____

Đại học Tôn Đức Thắng / Ton Duc Thang University, represented for the purpose hereof by Dr. Tran Trong Dao, President, established in Ho Chi Minh City (Vietnam), acting as its legal authorised representative, hereby consents to become a Consortium Institution to the Consortium Agreement for the International Joint MSc Programme in Mathematics for Real World Applications (RealMaths), Cohorts 2025 – 2026 – 2027 and accepts in accordance with the provisions of the aforementioned Agreement all the rights and obligations of a Consortium Institution.

Done in nineteen original copies.

Name of Legal Entity: **Đại học Tôn Đức Thắng** / Ton Duc Thang University, Ho Chi Minh City (Vietnam)

Name of legally authorised representative: Dr. Tran Trong Dao

Function of legally authorised representative: President *TR*

Date: November 25, 2024

Signature of legally authorised representative: _____ *TR*

Stamp of the organisation:



Coordinating Institution

Name of Legal Entity: Università degli Studi dell'Aquila, L'Aquila (Italy)

Name of legally authorised representative: Prof. Edoardo ALESSE

Function of legally authorised representative: Rector

Date: 29 DEC. 2024

Signature of legally authorised representative: _____ *E. Alessi*

Stamp of the organisation:

