TABLE 8 – PhD Programme MATHEMATICAL AND PHYSICAL SCIENCES

THE PhD PROGRAMME	
Administrative location	University of Udine - Department of Mathematics, Computer Science and Physics (DMIF) – via delle Scienze 206, 33100 Udine, Italy (+39 0432 558400).
Associated location	-
Location for training, teaching and research activity	Teaching and other training activities will take place primarily at the administrative programme location or in other locations of the University of Udine. The research program will be mainly developed, with reference to the scholarship (see art. 11 and 14 of the Call) and/or to the supervisor assigned, at the administrative programme location, other locations of the University of Udine or financial supporter's location (if the financial supporter is an external institution).
Coordinator	Prof.ssa Roberta Musina (roberta.musina@uniud.it)
Programme duration	3 years
Research topics	- MATHEMATICS: Algebra and Topology; Numerical analysis; Mathematical and functional analysis; Algebraic geometry; Mathematical logic; Dynamical systems; Statistics; Operation research; Mathematics for applied economics and finance. - PHYSICS: Astrophysics; Physics education; Particle physics; Advanced detection systems; Bio- and Nanosystems simulation. More details at https://dmif.uniud.it/it/didattica/dottorato/smf/collegio-docenti
Research programmes	The research programs, if not already defined by funding organizations or specific funding lines (see "Positions available and examinations", art. 3 p. 5 of the Call), are decided by the Teaching Board within the PhD programme Research topics https://dmif.uniud.it/it/didattica/dottorato/smf/collegio-docenti
Programme website	https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-physical-science-and-engineering/mathematical-and-physical-sciences/ph-d-programme/mathematical-and-physical-sciences?set_language=en https://www.dmif.uniud.it/dottorato/smf/

ADMISSION REQUIREMENTS	
Required degree	Italian Laurea (before DM 509/99) or Italian Laurea specialistica/magistrale (ex DM 509/1999 and DM 270/04) or equivalent degree obtained abroad. Foreign degrees and titles: refer to art. 4 and 5 of the Call.
Knowledge of the following foreign language	English

DOCUMENTS AND TITLES TO BE ATTACHED TO THE APPLICATION FOR ADMISSION	
Mandatory documents (Art. 5 of the Call) UNDER PENALITY OF EXCLUSION	1. Certification or self-certification (pursuant to art. 6 c. 5 of the Call) of the academic qualification for admission to the doctoral program (Italian Laurea Specialistica/Magistrale or Italian Laurea before DM 509/99 or foreign degree); 2. Curriculum vitae et studiorum, dated and signed; 3. Copy of a valid identity document (citizens of countries not belonging to the European Union a copy of a valid passport, comprehensive of the pages containing the holder's photo, personal details, passport number, date and place of issue, date of expiry);
Optional documents (Art. 5 of the Call)	1. Master thesis ("Tesi di Laurea") associated to the degree/title providing access to the PhD programme. Applicants who are not graduated on the expiration date of this Call must submit an extended abstract in place of the complete thesis, in Italian or English, signed by the thesis Supervisor (between 15,000 and 25,000 characters, included spaces). 2. Research project, dated and signed, referred to the research topics and research programs listed in this Table, with specific reference on the Teaching Board skills described in https://dmif.uniud.it/it/didattica/dottorato/smf/collegio-docenti (between 5,000 and 10,000 characters, included spaces, in English); 3. Motivation letter from the applicant explaining the reasons for admission to the PhD programme, dated and signed (between 1.500 and 2.500 characters, included spaces); 4. Publications (max 3); 5. Letters of reference (max 2) written by university professors, scientific researchers or other experts in the field (art. 7 of the Call).
All documents must be submitted exclusively in PDF format, dated and signed by the candidate.	

SELECTION COMMITTEE	
Appointed Members	Marina Cobal- – Full Professor – University of Udine Vincenzo Dimonte– Associate Professor – University of Udine Daniele Pranzetti -Researcher- University of Udine Rossana Vermiglio– Full Professor – University of Udine Andrea Molent– Associate Professor – University of Udine t

TABLE 8 – PhD Programme MATHEMATICAL AND PHYSICAL SCIENCES

Alternate Members	Diego Cattaruzza-Researcher- University of Udine Pietro Corvaja– Full Professor – University of Udine Guglielmo Feltrin– Associate Professor – University of Udine Paolo Giannozzi –Full Professor – University of Udine Davide Liessi-Researcher- University of Udine Simone Monzani -Researcher- University of Udine

ADMISSION

Competition procedure and test schedule		
Evaluation of qualifications and oral examination. For the evaluation of applicants' attitude for scientific research and their basic skills before the course program, the Selection Committee can attribute up to 100 points to each applicant: max 30 points to the titles and max 70 points to the oral examination. The applicant is admitted to the oral examination if his/her titles receive at least 15 points. The oral examination is passed with at least 49 points. The applicant is eligible for the PhD programme if he/she passes the oral examination. Only for eligible applicants, the points attained in in the oral examination will be added to the points of the titles.		
Language that can be used for the exam	Italian or English	
Evaluation Criteria of qualifications *During the preliminary meeting the Selection Committee may establish sub-criteria for the evaluation*	Curriculum vitae et studiorum, Scientific publications, Reference letters	*max.12*
	Thesis/Abstract	*max.8*
	Research project and Motivation letter	*max.10*
Oral examination	Interview about titles, previous career and research project also aimed at understanding the applicant's knowledge about fundamental topics in mathematics and/or physics, as well as his or her full eligibility to receive a scholarship funded by external institutions. Reading and understanding a short scientific text in English.	