UNIVERSITÀ DEGLI STUDI DI TORINO

"Annex 1" updated on 29th May 2020

(The updates and the corrections are highlighted in red colour)

ANNEX 1

CALL FOR PHD POSITIONS – 36th Cycle
PHD PROGRAMME IN EARTH SCIENCES

PhD Programme Coordinator	Prof. Anna Maria Ferrero
Department	Earth Science
PhD Programme Length	3 years
PhD web site	http://www.dst.unito.it/do/home.pl/View?doc=pagine_web/info_dottorato.html
Course start date	1st October, 2020
Departments involved in PhD programme	Department of Earth Science

Positions offered[1] by the PhD Programme	
n. 9 positions with scholarships, of which n. 2 reserved to students with international qualifications	of which: - 7 scholarships are funded by the University of Torino - 2 scholarships are funded by I.N.P.S.[2][3]
n. 2 positions without scholarships	

CALL FOR PHD POSITIONS
Admission procedure

[1] All additional scholarships and apprenticeship contracts (Legislative Decree no. 81/2015 art.45), which may become available after the publication of this Call, will be announced on the University websites Dottorati di Ricerca and PhD until Call's deadline.

[2] As regard with positions with scholarship funded by I.N.P.S. (Istituto Nazionale per la Previdenza Sociale) and linked to specific research topics for XXXVI PhD cycle (a.y. 2020/2021), applicants must comply with the conditions set out in the Article 3 of the Call for Admissions. The annual amount of the I.N.P.S. scholarship is € 15.343,28 (gross amount).

[3] The INPS Piedmont Regional Directorate (Direzione Regionale Piemonte dell'INPS) specifies that: "should your parent be employee of a public body, in order to ascertain their registration to "Gestione unitaria delle prestazioni creditizie e sociali", you must verify whether paycheques include an entry concerning the deduction for "Fondo Gestione Dipendenti Pubblici" with a 0,35% rate.

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Assessment of qualifications, research project and interview
Qualifications to be uploaded on the on-line application
• Research Project (max 2000 words, bibliography included) written in English by the candidate choosing a title among those listed by the Doctorate • Publications (max. 3)

Assessment criteria	**Maximum score 100 points**
Assessment of qualifications:	**Maximum score 40 points**
Final grade of Laurea/2nd cycle degree *(or list of examinations taken during the Laurea Triennale/1st cycle degree and Magistrale/2nd cycle degree for candidates applying under condition)*: 110L: 15 points 110: 13 points From 100 to 109: up to 11 points < to 99: 0 points Candidates with international qualifications will be judged on the basis of their *curriculum vitae et studiorum,* not only upon the final grade.	maximum score 15 points
Publications Maximum 2 point for each publication (max 3 publications already published will be assessed)	maximum score 4 points
Other qualifications: Second/additional Master degree: 4 points Italian Specializing Master Degree 1st or 2nd level (or equivalent foreign degree) if relevant: 3 points Any other pertinent specializing courses: 1 point Scholarship : max 2 points Prizes: max 2 points	maximum score 4 points

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Research Project	**maximum score 17 points**
Minimum threshold for admission to the interview	***20 points***
Oral interview	**Maximum score 60 points**
Minimum threshold for passing the interview	***40 points***

Further information on examinations:

Knowledge of the Italian or English language is compulsory.

Applicants may, on request and upon authorisation of the Examining Board, take the examinations in English or French.

The **research project** (written in English choosing a title among those offered by the PhD Programme and uploaded on the application procedure online) must consist of max 2000 words, bibliography included, beside any image and data table and will be discussed during the interview. The candidate should analyse the following points:
a) state of art on interested topic;
b) targets of the project;
c) research plan over the 3 years
The Examining Board will evaluate the scientific dimension of the project, its feasibility related to the length of the PhD, target setting and scientific impact of outcomes.

During the **interview**, the research project will be discussed.

Titoli progetti di ricerca
Dottorato di Ricerca in SCIENZE DELLA TERRA

Titles of research projects
PhD Programme in EARTH SCIENCE

	TUTOR	**co tutor**	**TITLE**	**TITOLO**

1	**Elena Belluso**	Francesco Turci, Dipartimento Chimica, UNITO	Study of characteristics of respirable crystalline and amorphous silica interacting with biological matter.	Studio delle caratteristiche delle particelle respirabili di silice libera cristallina e amorfa interagenti con materiale biologico.
2	**Sabrina Bonetto**	Federico Vagnon DST, UNITO, Pietro Mosca (Istituto Geoscienze e Georisorse, Sezione di Torino del CNR)	Monitoring of debris flow: study of the interaction between the protection works and the geological and geomorphological characteristics of the basin	Monitoraggio di colate detritiche: studio dell'interazione tra le opere di protezione e le caratteristiche geologiche e geomorfologiche di bacino
3	**Sabrina Bonetto**	Ferrero Anna Maria, DST, UNITO; Cardu Marilena, Politecnico di Torino	Micro to macro scale effects of long-term creep behaviour of salts	Effetti alla micro e macro scala della deformazione associata al creep in rocce saline
4	**Cesare Comina**	Alessandro Arato (Techgea S.r.l.)	Development of a seismo-electric land streamer for riverbanks investigation.	Sviluppo di un land streamer sismo-elettrico per indagini su argini fluviali.
5	**Domenico De Luca**	Emanuela Lasagna, Enrico Destefanis, DST, UNITO	Isotopic study of precipitation, surface water and groundwater of the Aosta valley (NW Italy)	Studio isotopico delle acque di precipitazione, superficiali e sotterranee della Val d'Aosta
6	**Domenico De Luca**	Emanuela Lasagna, Enrico Destefanis, DST, UNITO	Definition of the natural and anthropic background values of the main contaminants in the groundwater of	Definizione dei valori di fondo naturali e antropici dei principali contaminanti nelle acque sotterranee della pianura piemontese (NW Italy)

			the piedmont plain (NW Italy)	
7	**Simona Fratianni**	Tiziana Schilirò (Dipartimento di Scienze della Sanità Pubblica e Pediatriche, UNITO)	Climate change, air pollution and human health ~~*(research project linked to the scholarship funded by INPS)*~~	Cambiamento climatico, inquinamento atmosferico e salute ~~*(titolo di ricerca abbinato alla borsa finanziata da INPS)*~~
8	**Simona Fratianni**	Vincent Dubreuil (Université de Rennes, FR)	Future water scarcity scenarios induced by climate change: decadal predictions and remedial measures *(research project linked to the scholarship funded by INPS)*	Futuri scenari di disponibilità idrica indotti dai cambiamenti climatici: previsioni decadali e misure correttive *(research project linked to the scholarship funded by INPS)*
9	**Rocco Gennari**	Francesco Dela Pierre, Marcello Natalicchio, DST, UNITO	The flooding of the Mediterranean at the end of the messinian salinity crisis: fact or fiction?	L'inondazione del Mediterraneo alla fine della crisi di salinità Messiniana: realtà o finzione?
10	**Marco Giardino**	Luigi Perotti, DST UNITO, Antonio Montani, Club Alpino Italiano	High mountains, human activities and climate change: multitemporal field monitoring along routes and around refuges of the monte Rosa massif	Alta montagna, attività umane e cambiamenti climatici: monitoraggio multitemporale lungo i sentieri e presso i rifugi del massiccio del Monte Rosa

11	**Daniele Giordano**	Valdecir A. Janasi (USP, Brazil); Fabio Arzilli (Uni Manchester, UK)	Experimental and textural features analysis of volcanic rocks and experimental samples devoted to the comprehension of storage, eruption and emplacement dynamics of eruptive products from the Paraná magmatic province (Brazil).	Analisi sperimentale e delle caratteristiche tessiturali di rocce vulcaniche e campioni sperimentali tese alla comprensione delle dinamiche eruttive e di messa in posto di prodotti eruttivi dalla Provincia Magmatica Parana' Etendeka (Brasile).
12	**Daniele Giordano**	Claudia Principe (CNR-IGG)	The role of topography and physic-chemical properties in the emplacement dynamics of lava flows on the island of Tenerife (Canaries, Spain): implications on the volcanic hazard.	Il ruolo della topografia e delle proprietà chimico-fisiche sulla dinamica di messa in posto delle colate laviche sull'isola di Tenerife (Canarie, Spagna): implicazioni per il rischio vulcanico.
13	**Emanuela Lasagna**	Domenico De Luca, DST, UNITO	Study of the consequences of climate change on the springs of the western alps.	Studio delle conseguenze dei cambiamenti climatici sulle sorgenti delle Alpi occidentali
14	**Manuela Lasagna**	Domenico De Luca, DST, UNITO	Impact of climate change on groundwater of the piedmont plain.	
15	**Linda Pastero**	Marco Bruno, Francesco Dela Pierre, DST, UNITO	Growth of gypsum from saline solutions at variable red-ox conditions: implications for the Messinian salinity crisis	Crescita di gesso da soluzioni saline in condizioni ossido-riduttive variabili: implicazioni per la crisi di salinità Messiniana

16	**Pierluigi Pieruccini**		Deep-seated gravitational slope deformation in the central Apennines: a contribute to slope tectonics research	Deformazioni gravitative profonde di versante nell'appennino centrale: un contributo agli studi di slope tectonics
17	**Mauro Prencipe**	Belmonte Donato (Università di Genova)	Structure and dynamics on the Earth mantle: upgrade of thermodynamic databases for the prediction and interpretation of mineral phases equilibria at high temperature and pressure conditions, through ab initio quantum mechanical calculations.	Struttura e dinamica del mantello terrestre: integrazione di database termodinamici per la predizione e l'interpretazione degli equilibri tra fasi minerali in condizioni di alta temperatura e pressione, attraverso il calcolo quanto-meccanico ab initio.
18	**Marco Tonon**	Massimo DELFINO, DST, UNITO, dott. Andrea CARETTO, Dipartimento di Filosofia e Scienze dell'Educazione, UNITO	Earth science with/for education: a research to promote a teaching transdisciplinary.	L'Educazione con e per le Geoscienze: una ricerca per promuovere un'insegnamento transdiciplinare.
19	**Sergio Vinciguerra**	Cesare Comina DST, UNITO; Prof. Stefan Nielsen (University of Durham)	Thermally induced deformation in potential hazardous rockfall	Deformazione indotta da escursioni termiche e implicazioni nei rischi di frane da crollo

20	**Elena Zanella**	Sara Mana, Salem State University	Rock-magnetic study of the mount Calanna dike swarm (Etna): implications for dike swarm emplacement	Studio del magnetismo delle rocce del dike swarm di Monte Calanna (Etna): implicazioni geodinamiche sul meccanismo di messa in posto