



## PRELIMINARY CALL QCSC 2023 -REPORT

### Proposals description and outcome

We received 10 proposals from 7 Institutions, all of them universities (Table 1.a below). The topics of the proposals span a wide range of research areas with some predominance on Quantum Chemistry and Quantum Machine Learning (Table 1.b below).

**Table 1.a Proponent institutions**

Institution	# proposals
UNIPD	3
UNITN (Q@TN)	3
UNIAQ	2
UNIBA	1
UNIPR	1
UNIBO	1
UNIPV	1
	12

**Table 1.b Project topics as assigned by the reviewing committee**

Topic of the project	# proposals
Quantum chemistry	3
Quantum machine Learning	2
Quantum simulation of physical systems	1
Assessing properties of Variational Quantum Eigensolver	1
DWave application on prime factorization	1
Software Engineering of Simulators	1
Studying the DWave annealer as a physical system	1

Overall the number of proponents is 29 with a rather diverse scientific background, with 10 other collaborators and 12 Ph.D. candidates involved. Moreover 4 of the proposals involve international collaborations. The majority of the proposals are exploratory in scope (8 out of 10, see Table 2.a) and request some QPU time (either DWave or PASQAL, see Table 2.b). There is also a strong request for CPU time (6 out of 10).



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**Table 2.a Type of project**

Type of proposal	# proposals
Exploratory	8
Educational	4
Production	2
Research	2

**Table 2.b Requested Resources**

Resource	#Requests
CPU TIME	6
PASQAL	4
DWave	4
PASQAL emulator	1
QMT emulator	1
QUERA	1

The scientific level of all the proposals is above the threshold of acceptance. Some requests of computational resources are however excessive and they cannot be granted completely. The actual access to the resources will be granted taking into account the availability and technical feasibility.