

## KVANTUM RESEARCH PROJECTS FOR 2021 - 2024

# Preregistration for the applicants of Kvantum Institute research projects

Deadline for the preregistration is June 23, 2019

This is an important notice for all principal investigators (PIs) planning to participate in the upcoming [Kvantum](#) Institute research project call for 2021-2024. Those who are planning to apply are requested to preregister by June 23, 2019.

The preregistration material is due to the selection process of independent experts for the evaluation panel by the Academy of Finland. Only PIs preregistered are eligible.

The proposed research projects should represent well-focused research of high international quality within the University's strategic focus areas of [Earth and near-space system and environmental change](#) or [Creating sustainability through materials and systems](#) coordinated by focus institute Kvantum.

The Principal Investigator(s) (PI) should:

- be recognized in their field of science
- have high-quality scientific publications and
- have demonstrated ability to gain notable external funding for research.

The PI(s) and other researchers in the project should be affiliated with the University of Oulu, and the team must work at the University of Oulu; the project PI(s) has or negotiates an affiliation with the University. This has to be clearly indicated in the actual application.

Please note that application process includes two stages:

1. Preregistration
2. Call for projects

The actual call (including research plan for 2021 – 2024) for the projects will open in late autumn 2019.

Only one preregistration and application per researcher is accepted. The preregistration documents should be combined in the order shown below and submitted as a single pdf-file.

The preregistration file should be named as responsible PI's lastname\_firstname\_kvantum.pdf and sent electronically to the Registry Office of the University of Oulu (kirjaamo@oulu.fi) by June 23, 2019.

### Preregistration document (parts 1 – 3):

1. Information sheet:

- 1.1. Principal Investigator(s): name, contact information, e-mail, degrees awarded, current position, Unit, Faculty (if there is more than one PI, please indicate who is the responsible project leader)
- 1.2. Other project PI(s)\*: name, contact information, degrees awarded, current position, e-mail, Unit, Faculty
- 1.3. Working title of the research project
- 1.4. List of key words (max 10)
- 1.5. [Research field classification](#) by the Academy of Finland (also in Appendix 1)
  - 1.5.1. Main field(s)
  - 1.5.2. Subfield(s)

\*Principal Investigator (PI): Researcher's career stage III or IV  
(see <http://www.oulu.fi/sites/default/files/content/The%20four-stage%20research%20career%20model.pdf>)

2. Abstract (max. 3000 characters), describing the key aspects of research plan. The abstract (i.e. the summary of the research plan) should provide an overview of the scientific content:

- 2.1. Research objectives
- 2.2. Research methods and material

3. List of publications:

- 3.1. The PI's\* (the responsible project leader's) ten most important publications in terms of the research plan
- 3.2. The other PIs' *together* max. 10 most important publications in terms of the research plan

The preregistration material is used only for the selection of evaluator candidates by the Academy of Finland and it is not part of the evaluation process and its materials, and it is not provided to the evaluation panel. Those preregistered may change the type of application (a research team, consortium or an individual PI) for the actual call, but all names should be known for the evaluator pool selection process.

Further information:

Quality Manager Aija Ryyppö: e-mail [aija.ryyppo@oulu.fi](mailto:aija.ryyppo@oulu.fi), p. 0505917188

\*Principal Investigator (PI): Researcher's career stage III or IV  
(see <http://www.oulu.fi/sites/default/files/content/The%20four-stage%20research%20career%20model.pdf> )

## APPENDIX 1.

### Academy of Finland: Research field classification

	Main field		Subfield
No	Name	No	Name
101	Architecture	1011	Architecture
		1012	Community planning
102	Food engineering		
103	Energy engineering	1031	Bioenergy research
		1032	Fuel cells, solar energy
		1033	Combustion technology
		1034	Electric power engineering
		1035	Nuclear engineering: fission and fusion
104	Physics	1041	Atomic and molecular physics
		1042	Biological and soft matter physics
		1043	Fluid and plasma physics
		1044	Particle and nuclear physics
		1045	Optics, acoustics
		1046	Condensed matter physics
105	Geosciences	1051	Space physics
		1052	Geophysics and -chemistry
		1053	Geoinformatics
		1054	Geology
		1055	Geography
		1056	Meteorology and atmospheric sciences, climate research
106	Chemistry	1061	Analytical chemistry
		1062	Inorganic chemistry

		1063	Physical chemistry
		1064	Organic chemistry
		1065	Polymer chemistry
107	Mechanical engineering and manufacturing technology		
108	Computational science		
109	Medical engineering		
110	Mathematics	1101	Pure mathematics
		1102	Applied mathematics
111	Materials science and technology	1111	Biomaterials
		1112	Functional materials, semiconductors
		1113	Ceramic materials
		1114	Metals
		1115	Polymer materials
		1116	Wood and paper materials
112	Nanoscience and nanotechnology		
113	Process technology	1131	Biomass refinery technology
		1132	Instrumentation engineering
		1133	Process control and control engineering
		1134	Technical chemistry
114	Construction and municipal engineering	1141	Geotechnical engineering
		1142	Construction engineering
		1143	Construction economics
		1144	Municipal engineering
115	Electrical engineering and electronics	1151	Automation and systems technology

		1152	Electronics
		1153	Signal processing
		1154	Electrical engineering
		1155	Computer engineering, computer architecture
		1156	Communications engineering
116	Industrial biotechnology	1161	Biocatalysis
		1162	Bioprocess engineering
		1163	Fermentation
117	Computer science	1171	Computational data analysis
		1172	Software engineering, operating systems, man-computer interaction
		1173	Theoretical computer science
		1174	Information systems science
118	Statistics		
119	Industrial management		
120	Astronomy	1201	Solar, stellar and interstellar matter physics
		1202	Solar system physics and planetary science
		1203	The Milky Way, galaxies and cosmology
121	Environmental engineering	1211	Mining and minerals engineering
		1212	Remote sensing
		1213	Marine technology
		1214	Industrial processes

201	Biochemistry, biophysics		
202	Ecology, evolutionary biology and ecophysiology		
203	Plant biology		
204	Developmental biology and physiology		
205	Microbiology		
206	Genetics		
207	Cellular and molecular biology		
208	Systems biology, bioinformatics		
209	Environmental science	2091	Ecotoxicology and environmental impacts
		2092	Environmental research

301	Food sciences		
302	Agricultural sciences		
303	Forest sciences		

401	Biomedicine		
402	Veterinary medicine		
403	Pharmacy		
404	Dental science		
405	Nursing science		

406	Public health research		
407	Clinical medicine		
408	Sport sciences		
409	Nutrition		
410	Environmental health research		

501	Neuroscience	5011	Molecular and cellular neuroscience
		5012	Systemic and cognitive neuroscience

601	Human geography	6011	Economic geography, regional development and tourism research
		6012	Social and cultural geography, urban studies, regional studies
602	Economics		
603	Education	6031	Adult education
		6032	Vocational education research
		6033	Special education
		6034	Education evaluation
		6035	Early childhood education and preschool education
		6036	General education and teacher education
604	Development research		
605	Business administration		

606	Women and gender studies		
607	Law		
608	Psychology	6081	Developmental psychology, educational psychology
		6082	Psychotherapy
		6083	Health psychology
		6084	Work and organisational psychology
609	Social sciences	6091	Anthropology and ethnology
		6092	Social psychology
		6093	Sociology, demography
		6094	Social policy, social work
610	Science studies		
611	Political science	6111	Public administration
		6112	International relations
		6113	Politology
612	Communication	6121	Informatics
		6122	Journalism
		6123	Library and information science
		6124	Speech communication, organisational communication
		6125	Media and communication research
613	Environmental social science research		



701	Philosophy	7011	History of philosophy
		7012	Practical philosophy
		7013	Theoretical philosophy
		7014	Philosophy of science and methodology
702	History and archaeology	7021	Archaeology
		7022	History
703	Linguistics	7031	Phonetics
		7032	Language, society and culture
		7033	Applied linguistics
		7034	Individual languages and language regions
		7035	General linguistics
704	Literature research		
705	Design research	7051	Artistic design
		7052	Industrial design
706	Art research	7061	Film and television research
		7062	Aesthetics
		7063	Folklore studies
		7064	Musicology
		7065	Semiotics
		7066	Art research, art history, architecture

		7067	Theatre research, dramaturgy
707	Theology	7071	Exegetics
		7072	Church history
		7073	Church sociology
		7074	Practical theology
		7075	Systematic theology
		7076	Comparative religion