

# 2021-11th Researcher Recruitment for College of Natural Sciences

## I Candidates and Eligibility

No.	Position/Research field	Expected number of people	Main Task, Eligibility and preferences
CHM-11-1	Post-Doctoral Researcher -Gas phase spectroscopy or atomic and molecular physics (Pl. BumSuk Zhao)	1	<p><b>[main task]</b></p> <ul style="list-style-type: none"> <li>Perform research projects on manipulating molecules using optical standing waves and grazing incidence matter wave optics (controlling molecular motions with molecule-field or molecule-surface interactions)</li> </ul> <p><b>[Eligibility]</b></p> <ul style="list-style-type: none"> <li>Ph.D. Degree (holders or prospective doctoral candidates until the appointment date)</li> <li>must have more than 2 SCI publications in relevant fields in the last five years</li> </ul> <p><b>[Preferences]</b></p> <ul style="list-style-type: none"> <li>Related research experience</li> </ul>
MIH-11-1	Post-Doctoral Researcher - Mathematics (Pl. Bongsoo Jang)	1	<p><b>[main task]</b></p> <ul style="list-style-type: none"> <li>Perform research project including research paper writing and numerical simulation</li> <li>Lab research activities <ul style="list-style-type: none"> <li>Scheduling of and participating in lab research meetings and seminars</li> <li>Monitoring and reporting research activities of lab graduate students</li> </ul> </li> </ul> <p>Research take</p> <ul style="list-style-type: none"> <li>Field: Numerical analysis of fractional system and dynamical applications</li> </ul> <p><b>[Eligibility]</b></p> <ul style="list-style-type: none"> <li>Ph.D. Degree (holders or prospective doctoral candidates until the appointment date)</li> <li>Expertise related to any of the following areas: Scientific Computation, Numerical Analysis, Dynamics, Machine Learning</li> <li>At least two published (or accepted for publication) SCI(E) paper within recent three year as the first or corresponding author.</li> </ul> <p><b>[Preferential]</b></p> <ul style="list-style-type: none"> <li>At least 1 published (or accepted for publication) SCI(E) paper within recent three years for each applied research field.</li> </ul>
MIH-11-2	Post-Doctoral Researcher - Mathematics (Pl. Bongsoo Jang)	1	<p><b>[main task]</b></p> <ul style="list-style-type: none"> <li>Perform research project including research paper writing and numerical simulation</li> <li>Lab research activities <ul style="list-style-type: none"> <li>Scheduling of and participating in lab research meetings and seminars</li> <li>Monitoring and reporting research activities of lab graduate students</li> </ul> </li> </ul> <p>Research take</p> <ul style="list-style-type: none"> <li>Field : Evolutionary game theory, biodiversity and complex network</li> </ul> <p><b>[Eligibility]</b></p> <ul style="list-style-type: none"> <li>Ph.D. Degree (holders or prospective doctoral candidates until the appointment date)</li> <li>Expertise related to any of the following areas: Scientific Computation, Numerical Analysis, Dynamics, Machine Learning</li> <li>At least two published (or accepted for publication) SCI(E) paper within recent three year as the first or corresponding author.</li> </ul> <p><b>[Preferential]</b></p> <ul style="list-style-type: none"> <li>At least 1 published (or accepted for publication) SCI(E) paper within recent three years for each applied research field.</li> </ul>
MIH-11-3	Post-Doctoral Researcher -Mathematics (Pl. Yunho Kim)	1	<p><b>[main task]</b></p> <ul style="list-style-type: none"> <li>Perform research project including research paper writing</li> <li>Lab research activities <ul style="list-style-type: none"> <li>Scheduling of and participating in lab research meetings and seminars</li> <li>Monitoring and reporting research activities of lab graduate students</li> </ul> </li> </ul>

			<p><b>[Eligibility]</b></p> <ul style="list-style-type: none"> <li>○ Ph.D. degree (holders or prospective doctoral candidates until the appointment date)</li> <li>○ Expertise related to any of the following areas: Analysis, PDEs, Optimization/Numerical Methods</li> </ul> <p><b>[Preferences]</b></p> <ul style="list-style-type: none"> <li>○ Programming experience in Machine Learning or Image Processing</li> <li>○ At least 1 published (or accepted for publication) SCI(E) paper within recent three years</li> </ul>
PH-Y-11-1	Black hole and high-energy astrophysics (PI. Dongsu Ryu)	1	<p><b>[main task]</b></p> <ul style="list-style-type: none"> <li>○ Perform research project <ul style="list-style-type: none"> <li>- Simulation and analysis of cosmological structure formation</li> <li>- Analysis of the full-sky galaxy survey data and estimation of cosmological parameters</li> <li>- Creation and analysis of the hydrogen 21cm line intensity map based on the simulation or the galaxy survey data</li> </ul> </li> </ul> <p><b>[Eligibility]</b></p> <ul style="list-style-type: none"> <li>○ Ph.D. Degree</li> </ul> <p><b>[Preferential]</b></p> <ul style="list-style-type: none"> <li>○ Preferential treatment for experienced researchers</li> <li>○ more than 1 SCI(E) papers within recent three years</li> <li>○ Preferential for those who can speak English</li> </ul>
PH-Y-11-2	Black hole and high-energy astrophysics (PI. Dongsu Ryu)	1	<p><b>[main task]</b></p> <ul style="list-style-type: none"> <li>○ Perform research project <ul style="list-style-type: none"> <li>- Radio observations of Jet and outflows from black holes in binary systems, quasars, active galactic nuclei, and tidal disruption events (TDEs)</li> <li>- Starting up the radio-emitting TDE survey project with appropriate radio telescope (e.g., KVN)</li> </ul> </li> </ul> <p><b>[Eligibility]</b></p> <ul style="list-style-type: none"> <li>○ Ph.D. Degree</li> </ul> <p><b>[Preferential]</b></p> <ul style="list-style-type: none"> <li>○ Preferential treatment for experienced researchers</li> <li>○ more than 1 SCI(E) papers within recent three years</li> <li>○ Preferential for those who can speak English</li> </ul>
PH-Y-11-3	Condensed matter physics (PI. Hosub Jin)	1	<p><b>[main task]</b></p> <ul style="list-style-type: none"> <li>○ Perform research project <ul style="list-style-type: none"> <li>- Calculation of various topological materials using DFT</li> <li>- Berry curvature related response function calculation</li> </ul> </li> </ul> <p><b>[Eligibility]</b></p> <ul style="list-style-type: none"> <li>○ Ph.D. Degree (holders or prospective doctoral candidates until the appointment date)</li> <li>○ Condensed matter system theory/numerical calculation expert</li> </ul> <p><b>[Preferential]</b></p> <ul style="list-style-type: none"> <li>○ Preferential treatment for experienced researchers</li> <li>○ more than 1 SCI(E) papers within recent three years</li> <li>○ Preferential for those who can speak English</li> </ul>
RD-11-1	URS Post-Doctoral Researcher -Extragalactic Astrophysics (PI. Sandro Tacchella)	1	<p><b>[main task]</b></p> <ul style="list-style-type: none"> <li>○ Perform research in collaboration with Sandro Tacchella in the field of galaxy formation and evolution</li> <li>○ Analysis of observational and/or theoretical datasets</li> </ul> <p><b>[Eligibility]</b></p> <ul style="list-style-type: none"> <li>○ Ph.D. Degree (holders or prospective doctoral candidates until the appointment date)</li> <li>○ more than 1 SCI(E) papers within recent three years</li> </ul> <p><b>[Preferences]</b></p> <ul style="list-style-type: none"> <li>○ Preferential treatment for experienced researchers</li> <li>○ Preferential treatment for those who can speak English</li> <li>○ Expertise in one or several of the following areas: spectral energy distribution modeling, identification of high-redshift galaxies, galaxy morphology measurements, time series analysis, numerical simulations, HPC</li> </ul>

※ Notice

1) Applicants can apply to only one field

- 2) Career or qualifications in each fields' requirement or preferred conditions must be Supported with proofs such as certificates. in case submitted proofs are confirmed as false documents, acceptance can be cancelled.
- 3) The criteria for accreditation of official English grades are limited to those published with in 2 years of the application deadline
- 4) In the absence of suitable candidates, nobody can be selected.
- 5) There might be primary candidates, so they can be hired with rankings among them in cases such as one of them gives up on the recruitment or there being vacancy in the same field within 6 months.
- 6) UNIST discloses the number of relatives hired according to the government's recruitment system for public institutions.

## II Contract

No	Position	Principal Investigator	Term	Working hours	Monthly pay (Pre-tax basis)	working place
GHM-11-1	Post-Doctoral Researcher	Bum Suk Zhao	2022.01.01. ~ 2022.12.31.	- The five day Week - Working Hour 09:00~18:00 - Recess 12:00 ~ 13:00	₩2,500,000	Bldg. 103 UNIST
MIH-11-1	Post-Doctoral Researcher	BongSoo Jang	2022.01.01. ~ 2022.12.31.	- The five day Week - Working Hour 09:00~18:00 - Recess 12:00 ~ 13:00	₩2,500,000 ~ ₩3,500,000	Bldg. 108 UNIST
MIH-11-2	Post-Doctoral Researcher	BongSoo Jang	2022.01.01. ~ 2022.12.31.	- The five day Week - Working Hour 09:00~18:00 - Recess 12:00 ~ 13:00	₩2,500,000 ~ ₩3,500,000	Bldg. 108 UNIST
MIH-11-3	Post-Doctoral Researcher	Yunho Kim	2022.01.01. ~ 2022.12.31.	- The five day Week - Working Hour 09:00~18:00 - Recess 12:00 ~ 13:00	₩3,000,000	Bldg. 108 UNIST
PHY-11-1	Post-Doctoral Researcher	Dongsu Ryu	2022.01.01. ~ 2022.12.31.	- The five day Week - Working Hour 09:00~18:00 - Recess 12:00 ~ 13:00	₩3,300,000	Chosun University
PHY-11-2	Post-Doctoral Researcher	Dongsu Ryu	2022.01.01. ~ 2022.12.31.	- The five day Week - Working Hour 09:00~18:00 - Recess 12:00 ~ 13:00	₩3,300,000	Chungbuk National University
PHY-11-3	Post-Doctoral Researcher	Hosub Jin	2022.01.01. ~ 2022.12.31.	- The five day Week - Working Hour 09:00~18:00 - Recess 12:00 ~ 13:00	₩3,000,000	Bldg. 108 UNIST
RD-11-1	Post-Doctoral Researcher	Sandro Tacchella	2022.01.01. ~ 2022.12.31.	- The five day Week - Working Hour 09:00~18:00 - Recess 12:00 ~ 13:00	₩2,800,000	Bldg. 108 UNIST

- 1) Researchers are contracted for up to one year and can be re-signed through evaluation.
- 2) The place of work may be changed depending on internal circumstances
- 3) Salary can be changed depending on experiences in the field through discussion. Extra payment may occur
- 4) Detail of contract can be revised by mutual consent with the Research PI.

## III Document Submission and Screening

- Recruitment notice and documents submission period
  - From 09 November, 2021 to 24 November, 2021 @ 24:00
  - Only applications that arrived during the period are Valid.
- Document Submission: Recruiter [E-mail\(mp3to@unist.ac.kr\)](mailto:mp3to@unist.ac.kr)

※ How to apply

- The submitted documents are converted into one PDF file (after scanning) and sent by e-mail.
- Subject: 「Position-Recruitment Area: OOO(Applicant name)」
- Note: Applications should be received by 24:00 on the due date(Korean Time)

○ Documents to be submitted

Position	Submission documents	Remarks
Post-doc researcher	1) Applicant Form 2) Self introduction 3) Agreement to provide personal information to third parties	- Required documents - Refer to attachment

- ※ When filling out the application form, the relevant documents must be prepared in advance. Successful applicants will be canceled due to erroneous input All responsibility for harm lies with the applicant
- ※ According to blind employment, there is to be no submission of photograph, school name, name of advisor, credit, family, relationship, family name, date of birth, and physical condition.

○ Screening & Other Information

Screening Stage	how to select
Document Screening	Evaluate the suitability of recruitment area, select 5 times the number of candidates that the opening in order of the highest total score.  ※ Evaluation Standard(Score) - Post-Doctoral: Self instruction(50), Job competencies(50)
Interview Screening	Evaluation of research performance and specialties and job performance ability in recruitment area  ※ Evaluation Standard(Score) - Post-Doctoral: Job competencies(30), Development potential(30), Suitability for UNIST(20), Basic ability(20)

○ Final appointment

- Under article 33 of the National Civil Service Act regarding the disqualification conditions of the appointment of national civil services, successful candidates who are applicable of the disqualification conditions or failed in physical examination will be excluded from appointment.
- Persons whose identity has been identified as a result of an inquiry and a survey of candidates for recruitment(final interview candidates) in accordance with the original rules may be canceled through discussion.
- If a person is found to have a final appointment and has been found to have submitted false information, application forgery, of fraudulent employment, the appointment may be canceled as per Article 33 of the Civil Service Act.
- If an unsuccessful candidate wishes to retrieve one's application document, request can be made within 2 weeks of announcement

**IV**

## Recruitment Schedule

Step	Schedule	Remarks
Application Period	2021.11.09. ~ 2021.11.24.	~24:00 on 2021.11.24.
Documents review	2021.11.25. ~ 2021.12.03.	Announcement of successful candidates: 2021.12.03.
Interview	2021.12.06. ~ 2021.12.17.	Announcement of successful candidates: 2021.12.17.
Appointment	2022.01.~	

※ Schedules are subject to change.

**V**

## Contact

○ Ulsan Institute of Science and Technology (UNIST)

- Academic & Students Affairs Team, College of Natural Sciences

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- Address: No. 50, 108-dong 701-12, Unist-gil, Eonyang-eup, Ulju-gun, Ulsan