

ICRC 2021 - Job Board

Monday, 12 July 2021 - Friday, 23 July 2021

Online

Book of Abstracts

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Offering a position / 5**Full Professor (W3) for Experimental Astroparticle Physics****Author:** Stefan Funk¹¹ *ECAP*<https://inspirehep.net/jobs/1867064>**Type of post:**

Permanent Staff / Tenure-track

Offering a position / 6**Experimental PhD Position: Search for light dark matter at Beam Dump Facility****Author:** Marc Schumann¹¹ *University of Freiburg*

The Astroparticle Physics Group at the Physics Institute of the University of Freiburg invites applications for a

Experimental PhD Position:**Search for light Dark Matter at a Beam Dump Experiment at CERN**

The successful candidate will conduct experimental work in context of the Beam Dump Facility (BDF) to be realized at CERN, where projects such as the proposed SHiP Experiment (Search for Hidden Particles) could be installed. Such experiments will produce very weakly interacting long-lived particles from a new “Hidden Sector” of particle physics by sending a high-intensity proton beam into a beam dump, and to subsequently detect the decays of these particles. A central component of the BDF will be its decay vessel enclosed by the liquid scintillator-based Surround Background Tagger (SBT) to reject background events. The PhD candidate will realize a first full-scale prototype of a SBT segment which will be characterized at a testbeam at CERN and develop the readout electronics for its silicon photomultiplier (SiPM) signals.

The astroparticle physics group at the University of Freiburg is also involved in the direct detection of dark matter (XENON, DARWIN), as well as in CAST and COMPASS / AMBER at CERN.

Applicants should have a Master's degree (or equivalent) in physics and knowledge in (astro-)particle/nuclear physics. Interests and skills in hardware development, laboratory work and electronics are important. Basic programming skills are required.

Interested candidates are encouraged to send a motivation letter stating their research interests, a CV with a list of publications (if available), an abstract of the masters/diploma thesis (max ½ page), degree certificates and study transcripts with a description of the grading scheme, a tangible proof of the fluency in English (if available) as well as names and email addresses of two potential references to marc.schumann@physik.uni-freiburg.de. Please send applications in electronic form (one single pdf file).

The position is open July 1st, 2021 until filled. Applications are reviewed in the order they are received. Salary is 66% of a German TV-L-13 position. We welcome applications from women and members of underrepresented groups in our field. Applicants with disabilities will be given preferential consideration in case of equal qualification.

Type of post:

PhD studentship

Offering a position / 7**Postdoc position in Chicago****Author:** Rasha Abbasi¹¹ *Loyola University Chicago*

Post-Doctoral Research Associate –Lightning Observation

Location: Loyola University Chicago, Chicago U.S.A.

Department: Physics Department

Pending Approval, review of Applications will continue until the position is filled.

Expected Start Date: Sep 1, 2021 or As soon as the position is filled.

Duties: Prof. Abbasi is recruiting a Post-Doctoral Research Associate to specialize in lightning research, observations, and applications. The selected applicant will work closely with Prof. Abbasi and the Telescope Array collaboration on observing the optical emission from Terrestrial Gamma-ray Flashes (TGFs) using a high-speed video camera and a photometer system. The selected applicant will also work closely with the Physics Department at Loyola University Chicago on teaching classes during the spring semester of their appointment. Thus, this position will allow the Post-Doctoral Research Associate the unique opportunity to develop both their research and teaching skills. The main responsibilities would be 1) analyzing the collected data from the high-speed video camera and the photometers in correlation with the TGFs observed by the Telescope Array Surface Detector (TASD) and lightning observed by the (INTerFerometer) INTF at the TASD site. 2) Maintaining and collecting data from the optical instruments at the TASD site. 3) simulation of the optical component of TGFs and lightning. 4) Teaching undergraduate classes and labs. This position will require the presentation and publication of research findings at scientific conferences and in academic journals. This position also requires travel to Utah multiple times a year.

Qualifications:

Applicants should have a Ph.D. in physics. This position requires familiarity with lightning observations and TGFs, along with fluency in at least one programming language (e.g., Python, C++, Java). Preference will be given to applicants with knowledge of high-speed video camera and photometer observations.

To Apply:

Interested candidates should send a CV, official or unofficial transcripts, a list of at least 3 professional references, and a cover letter explaining how your qualifications meet the requirements for this position to rabbasi@luc.edu.

Type of post:

PostDoc

Offering a position / 8

PhD POSITION IN OPTICAL STUDIES OF BINARY MILLISECOND PULSARS

Author: Manuel Linares¹

¹ *UPC Barcelona, Spain*

We welcome applications for one PhD position at the Department of Physics of the Norwegian University of Science and Technology (NTNU).

The position has a duration of three years, with a possible extension to a fourth year contingent on availability and optional teaching duties. The expected start date is January 2022.

The selected candidate will join a growing and multifaceted research team funded by the H2020 ERC Consolidator Grant LOVE-NEST (PI: M. Linares). The main focus of the ERC team is the study of compact binary millisecond pulsars, which has an impact on a broad range of science topics (including super-massive neutron stars, nuclear physics, gravitational wave astronomy, cosmic rays, accretion flows and pulsar winds).

The position is based in Trondheim: a vibrant multicultural city surrounded by beautiful landscapes and the third largest municipality in Norway (renowned as its technological capital). NTNU is the largest University in the country and provides excellent working conditions.

For full details and how to apply, see:

<https://www.jobbnorge.no/en/available-jobs/job/207154/phd-position-in-optical-studies-of-binary-millisecond-pulsars>

Type of post:

PhD studentship

Offering a position / 9

POSTDOCTORAL RESEARCH FELLOW IN OPTICAL ASTRONOMY

Author: Manuel Linares¹

¹ *UPC Barcelona, Spain*

We welcome applications for one postdoctoral research fellow position at the Department of Physics of the Norwegian University of Science and Technology (NTNU).

The position has a duration of two years, with a possible extension to a third year contingent on the performance of the selected candidate (a fourth year may also be possible, depending on the availability of funds). Longer extensions might be possible if the researcher succeeds at securing independent funds/positions, through competitive national/international calls.

The expected start date is January 2022.

The selected candidate will join a growing and multifaceted research team funded by the H2020 ERC Consolidator Grant LOVE-NEST (PI: M. Linares). The main focus of the ERC team is the study of compact binary millisecond pulsars, which has an impact on a broad range of science topics (including super-massive neutron stars, nuclear physics, gravitational wave astronomy, cosmic rays, accretion flows and pulsar winds).

The position is based in Trondheim: a vibrant multicultural city surrounded by beautiful landscapes and the third largest municipality in Norway (renowned as its technological capital). NTNU is the largest University in the country and provides excellent working conditions.

For full details and how to apply see:

<https://www.jobbnorge.no/en/available-jobs/job/207138/postdoctoral-research-fellow-in-optical-astronomy>

Type of post:

PostDoc

Offering a position / 10

SCIENCE SOFTWARE ENGINEER

Author: Manuel Linares¹

¹ *UPC Barcelona, Spain*

We welcome applications for one science software engineer (senior engineer) position at the Department of Physics of the Norwegian University of Science and Technology (NTNU).

The selected candidate will join a growing and multifaceted research team funded by the H2020 ERC Consolidator Grant LOVE-NEST (PI: M. Linares). The main focus of the ERC team is the study of compact binary millisecond pulsars.

The position is permanent, with the first four years funded by the ERC Consolidator Grant and the following years funded by the Department of Physics.

The expected start date is December 2021.

For full details and how to apply see:

<https://www.jobbnorge.no/en/available-jobs/job/206784/science-software-engineer-position>

Type of post:

Permanent Staff / Tenure-track

Offering a position / 11

PhD position for CTA/LST in Lodz

Author: Julian Sitarek¹

¹ *University of Lodz*

https://www.wfis.uni.lodz.pl/wp-content/uploads/2021/06/doktorant1_t3_ogloszenie.pdf

Type of post:

PhD studentship

Offering a position / 12

Post-doc position for CTA/LST in Lodz

Author: Julian Sitarek¹

¹ *University of Lodz*

https://www.wfis.uni.lodz.pl/wp-content/uploads/2021/06/postdoc_ogloszenie_t2.pdf

Type of post:

PostDoc

Offering a position / 13

Postdoc grants in Chile

Author: Andreas Reisenegger¹

¹ *U. Metropolitana de Ciencias de la Educación*

FONDECYT postdoctoral research projects in Physics, Astronomy, and Physics Education at Universidad Metropolitana de Ciencias de la Educación (Santiago, Chile)

The Department of Physics of Universidad Metropolitana de Ciencias de la Educación (UMCE) in Santiago, Chile, is seeking to expand its research activities. For this purpose, it is searching for candidates who may propose research projects to the Chilean National Fund for Science and Technology (FONDECYT) with the sponsorship of UMCE faculty members and, if successful, carry them out at UMCE.

Our Physics research faculty includes the following (for recent publications, see <https://www.umce.cl/index.php/dpto-fisica-publicaciones>):

- Luis Barrera (luis.barrera@umce.cl): Solar System, stellar astrophysics
- Mauricio Contreras (mauricio.contreras@umce.cl): theoretical physics, gravitation, econophysics
- Cristián Cortés (cristian.cortes@umce.cl): stellar astrophysics, variable stars, chemical abundances
- Jorge Pinochet (jorge.pinochet@umce.cl): physics education, astronomy education
- Andreas Reisenegger (andreas.reisenegger@umce.cl): neutron stars, high-energy astrophysics, CTA and SWGO collaborations

Chile hosts many of the largest telescopes in the world, 10% of whose observing time is reserved to scientists in the country. It will also host several next-generation telescopes, including the Vera C. Rubin Observatory (LSST), Giant Magellan Telescope (GMT), European Extremely Large Telescope (E-ELT), and Cherenkov Telescope Array (CTA). Santiago has become an important center for Physics and Astronomy, with research groups at several universities as well as the local ESO and ALMA centers.

FONDECYT has an open call (<https://www.anid.cl/concursos/concurso/?id=683>) with deadline 19 August 2021 for 2- or 3-year postdoctoral projects starting on 15 April 2022 and covering the researcher's salary, research expenses, and a relocation allowance. Candidates must have obtained their PhD no later than 26 August 2021 and no earlier than 1 January 2018, except for female applicants who have had children since that date, for whom the latter date is extended to an earlier date.

Given the short time available for the presentation of these projects, we urge potential candidates to contact as soon as possible the faculty member closest to their research interests, sending their

CV (including actual or expected PhD graduation date and a list of refereed publications) and a brief description of their research interests. For general questions, please contact Andreas Reisenegger (andreas.reisenegger@umce.cl).

Type of post:

PostDoc

Offering a position / 14

Postdoc for the CTA and MST project at DESY Zeuthen

Authors: Ullrich Schwanke¹; Markus Garczarczyk²

¹ *Z_CTA (Cherenkov Telescope Array)*

² *DESY*

Limited: 2 years | Starting date: earliest possible | ID: APPO005/2021 | Deadline: open | Full-time/Part-time

CTA, the Cherenkov Telescope Array, will be the next-generation facility for high-energy gamma-ray astronomy, consisting of about 100 telescopes of different sizes in the northern and southern hemisphere. Among other projects, DESY has the responsibility for the design, construction and deployment of the Medium Size Telescope (MST) structures.

The position:

- Design, test and implement MST control and configuration software
- Support the commissioning and performance verification of the first MSTs on the observatory site
- Support the software development for the CTA observatory
- Analysis of gamma-ray telescope data

About you:

- PhD in physics or astronomy or equivalent qualifications
- Experience in hardware development
- Experience with the operation of telescopes/detectors and the development of software for readout, control and/or monitoring
- Interest in software design, development and management
- Knowledge of OO programming (C++ or Java) and scripting languages (ideally python)
- Experience in astroparticle-physics and data analysis
- Fluent in English

Type of post:

PostDoc

Offering a position / 15

Shandong Institute of Advanced Technology is looking for Solar Physics Postdocs

Author: xi lu¹

¹ *Shandong Institute of Advanced Technology*

Shandong Institute of Advanced Technology, SDIAT, is a new international research institute established by the Government of Shandong Province, China. The goal is to provide a facility for scientists and engineers to carry out advanced research and development in science and technology. The Institute is located in Jinan, Shandong.

–Open Positions

Three positions of Research Scientist or Postdoctoral Research Associates. We focus on studying cosmic ray related solar physics, such as cosmic ray solar modulation, solar energetic particles transport, Forbush decrease, solar rotation recurrence of galactic cosmic rays, et al. We also plan to develop software to numerically model the cosmic rays caused space radiation environment, and to analyze its effect on spacecraft.

–Requirements

The candidates should have a Ph.D degree in one of the following disciplines: space physics, heliophysics, particle physics, nuclear physics, astroparticle physics, or other related ones.

–Salary

Annual salary between 300k and 600k CNY, depending on candidate's research ability, education background and academic experience. The institute provides support on the housing, medical insurance, etc.

–Contact

Please send the resume to: Dr. Xi Luo: xi.luo@iat.cn

Type of post:

PostDoc

Offering a position / 16

Job opportunity: Support scientist at NASA's HEASARC data archive

Author: Tess Jaffe¹

¹ NASA/GSFC

We are looking for a support scientist to join the HEASARC team to provide the data and tools needed to extract the most high energy astrophysics science from NASA data. See the full job ad at <https://jobregister.aas.org/ad/499c4693>.

This position:

- is mostly about technical support (Python, Docker, Virtual Observatory, etc.);
- includes time for independent research;
- is open to non-US citizens/residents (help with visa is provided);
- is not tenured but is a multi-year position of indeterminate duration.

Please feel free to contact me during or after the meeting if you have questions. A lot of skills are listed, but we don't expect one person to be an expert in all of this from the start. Apply anyway, and learn on the job!

Type of post:

Other

Offering a position / 17

PhD positions in Multimessenger Astronomy**Author:** Silvia Alessandria¹¹ *Z_APR (Leitungsbuero)*

About the school: The school aims at bringing highly qualified and motivated graduate students to the forefront of the field of Multimessenger astronomy through a world-class international training environment. PhD students will work with leading scientists in the field and benefit from their complementary expertise in theory and experiments involving the various messengers. Collaboration between students and researchers at the partner institutions is facilitated through a lively exchange program. The professional training of students includes data science as a supporting component of the school. Furthermore, the school offers a number of individual measures to promote career development. Depending on the primary location (Germany or Israel), the PhD will either be earned either at the Humboldt-University Berlin, at the University of Potsdam or at the Weizmann Institute of Science.

The research field: Multimessenger astronomy, the exploration of the Universe using information from a multitude of cosmic messengers, including electromagnetic radiation, neutrinos and gravitational waves, has lead to several groundbreaking discoveries during the last few years with significant contributions from the partner institutions. Through the development of better theoretical understanding, novel ways to combine the data and access to most sensitive instrumentation, members of the school will be optimally trained and positioned in this emerging field.

Partners of the school are DESY and Weizmann institute of Science, as well the Humboldt-University Berlin and University Potsdam. The Ruhr-Universität Bochum and the Friedrich-Alexander Universität Erlangen-Nürnberg are the school's associates. The school is receiving significant funding through the Initiative and Networking Fund of the Helmholtz Association.

Admission: Each year approximately 10 students from countries around the world are admitted to the school. The earliest date to start the PhD is in spring 2022.

Application: October 1, 2021 - November 7, 2021.

For more information including how to apply go to **www.multimessenger-school.de**.

Type of post:

PhD studentship

Looking for a position / 18

Looking for a PostDoc position in Astroparticle physics**Author:** Maximilian Stadelmaier¹¹ *KIT*

My name is Maximilian Stadelmaier, and I am about to finish a double doctoral degree in astroparticle physics (DDAp) at the KIT in Karlsruhe and the UNSAM in Buenos Aires, working for the Pierre Auger collaboration. My research history includes astroparticle physics and quantum field theory,

but my interests also extend to dark matter, cosmology, BSM physics and more.

For my PhD thesis I advanced and developed a model of particle densities in extensive air showers to reconstruct X_{\max} and R_{μ} with data only collected by a surface detector - please check out my ICRC talk here.

I aspire a career in or in the context of physics and I am therefore searching for a PostDoc position starting around April 2022.

You can find more relevant information about me here.

If interested, please contact me via max.stadelmaier@kit.edu. Thanks you for your time!

Type of post:

PostDoc

Offering a position / 19

Astroparticle Experiments and Astronaut Safety

Author: Alessandro Bartoloni¹

¹ *INFN Roma & CERN*

The AMS02 INFN Rome group is looking for a person for a postdoctoral position in the field of researching the effects of space radiation on human health.

The objective of the position, lasting one year, will be the production and analysis of particle flows with the AMS-02 experiment to support studies in space radiobiology and dosimetry.

Type of post:

PostDoc

Offering a position / 20

Postdoc and PhD positions in gamma-ray astronomy at ECAP

Author: Stefan Funk¹

¹ *ECAP*

The Erlangen Center for Astroparticle Physics (ECAP) at the University of Erlangen-Nürnberg is seeking outstanding individuals for a

Postdoctoral researcher position (electronics)

and a

PhD candidate position (machine learning)

The postdoc is expected to work on development, characterisation and commissioning of camera electronics for CTA (FlashCam, SSTCam) the PhD candidate is expected to work on machine learning for H.E.S.S. and CTA (classification, reconstruction, data/MC consistency).

Type of post:

PostDoc

Offering a position / 21**Postdoc for dark matter searches at IBS, Korea****Author:** Koun Choi¹¹ *SKKU***Job description:**

The center for underground physics (CUP, <https://cupweb.ibs.re.kr>) at Institute for Basic Science (IBS) in South Korea invites applications for a Postdoctoral research associate position to work on the project “Direct and indirect detection searches of sub-GeV dark matter signal in the Super-Kamiokande and future Water Cherenkov Detectors” (FY 2021~2026), funded with Young Scientist Fellowship program in IBS. The position is full-time, for an initial duration of 24 months, with the possibility of extension for 12 months. The annual salary will be decided based on the skills and experience of the applicant (starts from 50M KRW before taxation).

Super-Kamiokande (SK) is a Water Cherenkov Detector built in Kamioka, Japan. It has been leading a wide range of physics over 20 years, including Nobel Prize awarded discovery of atmospheric neutrino oscillation and leading tests of dark matter with mass below $O(10)$ GeV. Recently, a rare-earth element, gadolinium has been introduced into the SK water, starting a new period of observations (SK-Gd).

Our group is particularly interested in searches for sub-GeV dark matter signal, via dark matter-electron and dark matter-nucleus scattering inside the detector, as well as neutrino flux produced via dark matter annihilation. With its huge volume, SK is expected to lead sub-GeV dark matter and other rare signal searches. Identification of the scattering signal and mitigation of the background is important.

A Successful candidate is expected to take a leading role in the development and subsequent application of analysis methods to dark matter searches. The main tasks include identification of recoiled proton and other dark matter signals using neural network technique, modeling of dark matter scattering using Geant4 simulation, and background rejection. The candidate will also contribute to calibration and R&D efforts for SK and future Water Cherenkov Detectors such as WCTE. In particular, the candidate is expected to design and lead an ex-situ experiment to measure optical properties of materials used in the SK, and improve the detector simulation accordingly. Frequent travels to ICRR's Kamioka Observatory is foreseen (after pandemic).

The expected employment date is November 1, 2021.

Personal Qualification:

Candidates should have a Ph.D. in the past 5 years. Programming skills and good communication skills in English are necessary. Experiences with low-energy neutrino experiment, statistical methods, data analysis and Monte Carlo simulations, particularly with the ROOT and GEANT4, will be advantageous. Applicants from underrepresented groups are especially encouraged to apply.

Application:

Applicants should send a CV (including a list of publications), a brief research statement, and the consent form (can be downloaded here: https://www.ibs.re.kr/prog/recruit/eng/sub04_01/view.do?pageIndex=1&searchC) to recruit1@ibs.re.kr, also arrange for two letters of reference to be mailed to the same email address. Inquiries about the position should be directed to Dr. Koun Choi (koun@ibs.re.kr).

For the full consideration, the application and letters should arrive by August 13, 2021 while the position is open until filled.

Type of post:

PostDoc

Looking for a position / 22

postdoc position sought in Astrophysics

Author: Heshou Zhang¹

¹ *Z_THAT (Theoretische Astroteilchenphysik)*

I am Heshou, a final year Ph.D. from Desy and Uni. Potsdam with thesis already submitted. The defense is expected by the end of 2021 and my current contract is also until the end of 2021. I am looking for the postdoctoral position and fellowship on astrophysics. I am interested in both theoretical and observational aspects. My past and current research mainly focus on the study of plasma properties for extended objects in the galaxy. Also, I am familiar with different diagnostics of astronomical magnetic field in diffuse ISM. Turbulence and magnetic fields are important for the understanding of high-energy events. I am curious what outcome we would obtain if we compared the magnetic and plasma properties measured from those extended emission regions with more gamma-ray observational data. Additionally, I am interested in the multi-waveband comparison of observational data. I believe the magnetic turbulence observation could provide an independent channel for high energy events.

Throughout my previous experience, I would like to highlight my following expertise that will be helpful for the future research positions:

1. Supercomputing, I have been project admin on successful HLRN proposals. I have performed parallel computing on super-cluster with TBs scale data.
2. 3D-MHD simulation with MPI.
3. Research experience on plasma physics and its application to Galactic medium.
4. Multi-wavebands observational data comparison.
5. Spectral line calculation experience, I am familiar with radiative transfer of atomic lines.
6. Experience on publication to prestigious journals.
7. I have the successful experience for telescope proposals in optical and sub-millimeter band.
8. I have supervision experience for younger students.

My application material includes a cover letter, my CV (Page 2 - 3), publication list (Page 4 - 5), A brief personal statement (Page 6), research experience summary (Page 7 -9).

Please contact me via heshouzhang.astrophy@gmail.com

Type of post:

PostDoc

Offering a position / 23

External fellowship and grant programmes in the DESY Astroparticle Physics division

Author: David Berge¹

¹ *DESY and Humboldt-University Berlin*

Astroparticle physics at DESY covers Gamma-ray and Neutrino Astronomy as well as a vibrant Theory group. We focus heavily on Multi-Messenger Astronomy and contribute significantly to some of the most exciting Astroparticle Physics research facilities of the future.

<https://astroparticle-physics.desy.de> and https://www.desy.de/career/index_eng.html feature information about open positions and external fellowship and grant programmes for excellent scientists. If you are interested in such programmes and would like to join us at DESY please get in touch before applying.

Type of post:

PostDoc

Offering a position / 24

Postdoctoral Research Associate at Univ. of Arizona

Author: Federico Fraschetti^{None}

The Department of Planetary Sciences/Lunar & Planetary Laboratory at the University of Arizona invites applications for a Postdoctoral Research Associate position in the field of space physics/astrophysics. The successful applicant will work in collaboration with Dr. Federico Fraschetti. The department has an active research program in plasma astrophysics, heliophysics and theoretical astrophysics. The primary work is expected to be theoretical and computational. The study encompasses a wide range of topics relating in particular to transport of GeV-TeV galactic cosmic rays within the solar corona and the modeling of the gamma-ray emission observed by Fermi. Substantial theoretical experience in such topics is thus highly desirable for this position.

Please Contact me (ffrasche@email.arizona.edu or federico.fraschetti@cfa.harvard.edu) for more information.

Type of post:

PostDoc

Offering a position / 25

Multi-messenger Postdoc Retreat and Postdoc Fellowships at Ruhr-University Bochum

Author: Anna Franckowiak¹

¹ *Z_ICE (IceCube+NG)*

In the framework of the Scouting for Global Excellence Program we organize a one week workshop for international postdocs and senior PhD students (graduation by summer 2022) at Ruhr-University Bochum (RUB) during December 6-10, 2021.

Multi-messenger Astronomy is an exciting young field that by definition connects different disciplines. The goal of this workshop is to foster interesting discussions and ideas among the new generation of multi-messenger astronomers. Participants will get the opportunity to present their own research project, exchange ideas with international peers and get to know the newly established multi-messenger group at RUB. The group works on neutrino, gamma-ray and optical astronomy, multi-messenger modeling and instrumentation and has strong ties to DESY Zeuthen. We are members of the Fermi-LAT, IceCube, ZTF and CTA collaboration and we collaborate with the Weizmann

Institute in Israel to build the large array survey telescope (LAST).

The workshop encourages the development of joint research projects and **we will award two 6-months postdoc fellowships to attendees of the retreat** to work with the multi-messenger group at RUB. Furthermore, there will be options to extend the fellowship at RUB or at our close partner institution DESY Zeuthen.

The number of participants is limited to 10 and RUB will cover all travel and accommodation expenses. To apply to participate in the workshop please send a CV, including publication list and a 1-2 page research statement to Anna Franckowiak (anna.franckowiak@astro.rub.de) by August 31, 2021. The statement should briefly summarize your current research and motivate why you would like to participate in the multi-messenger postdoc retreat at RUB.

Please contact Anna Franckowiak (anna.franckowiak@astro.rub.de) for more information. We aim to organize the retreat as an in-person event. However, should the situation concerning the pandemic not allow an in-person meeting, we will hold the meeting remotely.

RUB promotes equal opportunities and diversity. The professional development of women is very important to us and therefore we strongly encourage women to apply for the program.

Type of post:

PostDoc

Looking for a position / 26

Searching for a Postdoc in Astronomy/Astrophysics

Author: Alisha Chromey¹

¹ *VERITAS Collaboration*

My name is Alisha Chromey. I am a doctoral student at Iowa State University and a member of the VERITAS research collaboration. My contributions to VERITAS have covered a range of projects: data analysis, paper committees, calibration studies, software maintenance, and multiple observing shifts. My thesis is dedicated to developing a maximum likelihood analysis for VERITAS observations, implemented with Gammapy software. I have experience in mentorship with multiple high school, graduate, and undergraduates in VERITAS research projects, as well as teaching assistantships in undergraduate-level physics and astronomy courses.

I expect to defend my dissertation before the end of 2021 and I am searching for a postdoc position in astronomy/astrophysics. My hope is to continue my career in astronomy, with my preference to remain in high-energy astrophysics projects, where I can also give back in the form of mentorship and outreach.

I presented my ICRC poster on July 13th, which you can see [here](#).

Type of post:

PostDoc

Offering a position / 27

Research Positions on AMS Physics at Shandong Institute of Advanced Technology

Author: Weiwei Xu¹

¹ *Shandong University*

Shandong Institute of Advanced Technology (SDIAT) seeks candidates for several positions working on the Alpha Magnetic Spectrometer (AMS) experiment.

Currently, it has openings for both senior and junior scientists including:

- 1) senior scientists,
- 2) principal research scientists,
- 3) junior research scientists,
- 4) postdoctoral scientists.

The appointment of each position will be based on international peer review standards to evaluate each candidate's qualifications.

SDIAT provides salary, benefits, and funding support at an international competent level. For the details, please refer to the attached document.

The positions will be primarily based at Jinan, China, with regular travels to CERN, Switzerland. The appointment could be extended based on mutual agreement.

The candidates should have a Ph.D. in experimental researches of particle physics, nuclei physics, or astro-particle physics. Interested candidates should submit their application, including curriculum vitae with publication list and a statement of research interests, and arrange for two letters of recommendation to be sent directly to Prof. Weiwei Xu (weiwei.xu@iat.cn).

The selection of candidates for interviews will begin immediately and will continue until all positions are filled.

Type of post:

PostDoc

28

Research Positions on AMS Physics at Shandong Institute of Advanced Technology

Author: Weiwei Xu¹

¹ *Shandong University*

Shandong Institute of Advanced Technology (SDIAT) seeks candidates for several positions working on the Alpha Magnetic Spectrometer (AMS) experiment.

Currently, it has openings for both senior and junior scientists including:

- 1) senior scientists,
- 2) principal research scientists,
- 3) junior research scientists,
- 4) postdoctoral scientists.

The appointment of each position will be based on international peer review standards to evaluate each candidate's qualifications.

SDIAT provides salary, benefits, and funding support at an international competent level. For the details, please refer to the attached document.

The positions will be primarily based at Jinan, China, with regular travels to CERN, Switzerland. The appointment could be extended based on mutual agreement.

The candidates should have a Ph.D. in experimental researches of particle physics, nuclei physics, or astro-particle physics. Interested candidates should submit their application, including curriculum vitae with publication list and a statement of research interests, and arrange for two letters of recommendation to be sent directly to Prof. Weiwei Xu (weiwei.xu@iat.cn).

The selection of candidates for interviews will begin immediately and will continue until all positions are filled.

Type of post:

Permanent Staff / Tenure-track

Offering a position / 29

Positions on Instrumentation and Electronics at Shandong Institute of Advanced Technology

Author: Weiwei Xu¹

¹ *Shandong University*

Shandong Institute of Advanced Technology (SDIAT) seeks candidates for several positions working on **the development of instrumentation and electronics**.

Currently, it has openings for both senior and junior scientists including:

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Type of post:

PostDoc

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Type of post:

Permanent Staff / Tenure-track

Offering a position / 31

Postdoctoral position for GRAND data analysis

Author: Lech Piotrowski¹

¹ *University of Warsaw*

Full-time employment for 2 years (24 months) period in the "Developing novel data analysis methods for future, huge radio-based cosmic rays and neutrino detectors, based on the GRANDProto300 experiment" project financed by the Polish National Agency for Academic Exchange. The main task of the selected candidate will be to develop methods of the analysis of data from radio-based cosmic rays and neutrino detectors using data from the GRANDProto300 experiment, a prototype to the planned state-of-the-art, largest cosmic rays detector - GRAND (<https://grand.cnrs.fr/>).

The application deadline is 7th of September 2021.

Please read the details of the position and the description of how to apply here:

https://www.fuw.edu.pl/tl_files/praca/2021/2021-07-14_praca_adiunkt_badawczy_ifd_wf_1210_124_2020_IV_edycja

Type of post:

PostDoc

Offering a position / 32

Research Project Engineer at University of Delaware**Author:** Frank Schröder¹¹ *University of Delaware and KIT*

We have an interesting opening for a Research Project Engineer at the Bartol Research Institute at the University of Delaware in Newark DE. This position is at the intersection of physics with electrical and computing engineering.

Please have a look to the announcement and contact me for any questions:
<https://inspirehep.net/jobs/1879361>

Type of post:

Other

Offering a position / 33

Postdoc and PhD positions in the DFG Research Unit 'Relativistic Jets in Active Galaxies'**Author:** Matthias Kadler¹¹ *JMU Wuerzburg*

We invite applications for 12 postdoctoral and doctoral student positions on **theory, observations, modeling and simulations of relativistic jets in active galaxies**. The successful applicants will be affiliated with one of the following member institutes of the research unit:

- Dr Karl Remeis Observatory, University of Erlangen-Nürnberg, Bamberg (FAU)
- Max-Planck-Institute for Radio Astronomy, Bonn (MPIfR)
- Hamburg Observatory, University of Hamburg, Hamburg (UHH)
- Landessternwarte Heidelberg-Königstuhl, Zentrum für Astronomie, Universität Heidelberg, Heidelberg (ZAH)
- Max-Planck-Institute for Astronomy, Heidelberg (MPA)
- Leibniz-Institute for Astrophysics, Potsdam (AIP)
- Inst. f. Theoretische Physik und Astrophysik, Julius-Maximilians-University Würzburg, Würzburg (JMU)

The preferred starting date is January 1, 2022. We are looking for highly qualified and highly motivated candidates with a MSc or equivalent degree in Physics or Astronomy (for PhD positions) or a doctoral degree, with interest to work on one of the following projects:

1. Jet Physics on event horizon scales and beyond using EHT and GMVA observations and GRMHD modeling (JMU, 2 positions in the groups of Christian Fromm and Matthias Kadler)
2. Development and application of relativistic reflection models for radio-loud AGN using X-ray spectroscopy (FAU; 1 position in the group of Jörn Wilms)

3. Studies of gamma-ray and MWL variability of Blazars using Fermi-LAT and HESS and time-dependent modeling of nonthermal AGN (JMU, ZAH; 2 positions in the groups of Sara Buson and Stefan Wagner)
4. mm-VLBI Studies of Gamma-Ray Bright Radio Galaxies with the GMVA and HSA (MPIfR; 1 position in the group of Biagina Boccardi)
5. Jet Composition under Scrutiny by GRMHD modeling and jet theory (JMU, MPA; 2 PhD in the groups of Christian Fendt and Karl Mannheim)
6. Large-Scale Blazar Jet Observations with LOFAR-VLBI (JMU; 2 positions in the group of Matthias Kadler)
7. Observations and Theory of jet feedback on groups and galaxy clusters using LOFAR surveys and numerical MHD modeling (UHH, AIP; 2 positions in the groups of Marcus Brüggen and Christoph Pfrommer)

Candidates should indicate in their cover letters which projects (or type of research: observational/theoretical) they would be interested in pursuing. Experience in the relevant field as well as programming in C, C++, Python (or any equivalent) is desirable. The required knowledge of the English language is level B1 of CEFR or above.

We value equality and diversity in research and encourage women and members of other underrepresented groups to apply. Preference will also be given to people with disabilities in case of equivalent qualification.

The process of hiring the selected candidates will be handled by the central administration of the respective hosting research institute or university. The salary will be based on the German federal public service salary scale (E13 TV-L; 66% for PhD positions, 100% for postdoc positions), amounting to a gross salary of approximately 2900-3050 EUR per month (4400-4600 EUR per month for postdoc positions). Successful candidates will receive standard unemployment, health, and retirement benefits according to the German law.

Please send your application including a cover letter with a short summary of your general research interests and a ranked list of the projects you would like to apply for. Please add your preferred starting date, together with a CV, copies of the BSc, MSc diplomas, PhD certificate or equivalent (if applicable), and contact details of two potential referees. Postdoctoral candidates should also add a statement of research interests of up to 4 pages. Please send all information as a single PDF document in an E-mail to **FOR5195-Applications@astro.uni-wuerzburg.de** with the subject: "AGN Jets Application". Applications should be submitted by September 30, 2021.

Type of post:

PhD studentship

Looking for a position / 34

Looking for postdoc in astroparticle physics (theory/pheno)

Author: Matthias Vereecken¹

¹ *Vrije Universiteit Brussel*

Hi, my name is Matthias Vereecken and I am looking for a postdoc position in astroparticle physics. I obtained my PhD at the end of 2019 at the Vrije Universiteit Brussels. My main interests are the origin of high-energy neutrinos and their connection with other messengers (gamma rays, cosmic rays and gravitational waves), as well as using these messengers as probes of new physics. My publications and thesis can be found on the arxiv.

For further information, contact me on at vereeckenmatt@gmail.com.

Type of post:

PostDoc

Offering a position / 35**Post-doc position in Prague - Astroparticle physics****Author:** Eva Santos¹¹ *Institute of Physics of the Czech Academy of Sciences*

The Institute of Physics of the Czech Academy of Sciences (FZU) is a public research institution focusing on basic and applied research in physics. FZU is the largest institute of the Czech Academy of Sciences with more than 1300 employees, including a considerable number of international workers. The ambition of FZU is to push forward the boundaries of knowledge and conducting first-rate research in the fields of elementary particles, condensed systems and solid particles, optics, plasma physics and laser physics.

The astroparticle physics department is a member of the Pierre Auger Observatory, CTA, and SWGO Collaborations.

We are looking for a new colleague to join the astroparticle team at the position of:

Postdoc - Astroparticle Physics

This offer will remain open until the position is filled.

Project description:

As an active group participating in leading cosmic-ray and gamma-ray experiments, we also have a line of research in general cosmic-ray open topics, with particular emphasis on the phenomenology of the longitudinal and lateral development of extensive air showers. We are primarily interested in developing new observables and analyses that can be employed in the current and next-generation cosmic-ray experiments to estimate cosmic ray composition and evaluate the characteristics of hadronic interactions at energies above the LHC.

Required qualifications:

- PhD. in physics with a thesis in a related field of research.
- Strong motivation to work on new research topics.
- English language –advanced in reading, writing, communicating.
- Excellent problem-solving skills.
- Good team-working skills.
- Good knowledge of C++ and Python.
- Experience with CORSIKA and CONEX Monte Carlo codes.

Why should you apply?

- Working in an international, creative, and highly motivated environment
- Working in a multidisciplinary research team
- A stimulating and friendly supervising and mentoring environment
- Unique research facilities
- Training and development possibilities (seminars, workshops, conferences)

- Soft skills training (project management, grant applications, ...)
- Language courses
- Flexible working hours
- Further benefits, among which, Multisport card, meal allowance, cooperate kindergarten,...

Terms of employment:

The initial employment period is 1 year (further extension is then possible and expected), starting from January 2022. **Participation in the Pierre Auger Observatory data analysis is possible.**

Application procedure:

Please send a motivation letter, your CV, a list of publications, and two references to esantos@fzu.cz, travnick@fzu.cz, daceva@fzu.cz.

Type of post:

PostDoc

Offering a position / 36

Mohrmann Professor (Associate/Full) in Astronomy and Astroparticle Physics

Author: Jörg Hörandel¹

¹ *Radboud University Nijmegen*

The Department of Astrophysics at Radboud University invites female researchers to apply for a tenured Mohrmann Professorship at associate or full professor level. Interests of applicants should be in line with the strategy of the Department (black holes, accretion, gravitational waves and compact binaries, transients, cosmic rays, magnetic fields, binary evolution and populations, star clusters, interstellar matter, star formation, planets and instrumentation). Applicants must hold a PhD in astronomy or physics and must have demonstrated the ability to define and develop independent research programs, as well as a proven track-record in teaching, student supervision and acquiring research funding.

The Mohrmann program has been established by the Faculty of Science to attract talented women with outstanding potential. In the 2021 round up to three positions are available. The Faculty of Science is organised in seven interdisciplinary institutes. The Department of Astrophysics is part of the Institute for Mathematics, Astrophysics and Particle Physics. The department holds 17 permanent and adjunct research staff members, 14 postdocs and 25 PhD students.

Information on the Mohrmann Professorship and the online application form can be found at the Mohrmann Program website

Information on the Department of Astrophysics can be found at: <https://www.astro.ru.nl>

For inquiries contact Prof Marijke Haverkorn (m.haverkorn@astro.ru.nl) or Prof. Jörg Hörandel (j.horandel@astro.ru.nl) in the Department of Astrophysics, or the chair of the Mohrmann Program, Prof Herma Cuppen (h.cuppen@science.ru.nl).

Type of post:

Permanent Staff / Tenure-track