



MOBILITY GRANTS

FOR

**SOUTH AFRICA-JOINT INSTITUTE FOR NUCLEAR RESEARCH (SA-JINR)
COLLABORATION**

2016

Closing date: 12 August 2016

Background

In 2005 the Republic of South Africa (RSA) and the Russian Federation (RF) signed a memorandum of agreement (MOA) that led to South Africa becoming an associate member of the Joint Institute for Nuclear Research (JINR). JINR is an independent, multinational research agency located in Dubna, the Russian Federation. JINR conducts both theoretical and practical research, mainly in the fields of elementary particle physics, nuclear physics and condensed matter physics.

The main objectives for South Africa's membership to JINR is to provide the South African research community with access to world-class facilities, research and networking opportunities with the JINR scientific community. As part of this agreement, travel grants are awarded to South Africa-based researchers (i.e. emerging and established) travelling to JINR labs or requesting funding to host JINR research experts for a short period (up to three weeks) in South Africa in order to enrich local expertise in their field. Researchers are eligible to apply in the following themes:

- i. **Accelerator Technology** - This thematic area includes the development of technologies associated with producing accelerated ion-beams, including: ion-sources, charge breeders, mass selectors, beam cooling, accelerators, and beam optics of stable as well as radioactive ion-beams.
- ii. **Focal Areas of Heavy Ion Physics Research Theme under the SA-JINR agreement** - Heavy-ion physics research is undertaken with the suite of accelerators located at the Flerov Laboratory for Nuclear Reactions (FLNR) at the JINR. Focal areas are : (i) Super- and Very Heavy Element research with the SHELS separator coupled with conversion-electron and gamma-ray detection ; (ii) the study of exotic nuclei with the Rare Ion Beam (RIB) facility DRIBS ; (iii) nuclear-reactor materials modification by swift heavy ions; (iv) Nuclear Structure Theory.
- iii. **Applied nuclear thematic** - The focus will be on development and applications of technologies using ion bombardment with swift heavy ions. The applications could be, for instance: in tracketched polymeric films for gas separation membranes; or super hydrophobic surfaces; stress testing of electronic circuits for space technologies; creation of anti bogus labelling; voltampere characteristics of semiconducting polymers for sensors; secondary structured surfaces; improved adhesion between metal and polymers, etc.
- iv. **Theoretical physics and computing** - The thematic area will involve Few-body problems in nuclear physics including multi-cluster nuclear systems and hypernuclei, dense and hot nuclear matter, simulations for nuclear collisions in the NICA energy region and Statistical methods applied to nuclear physics.

For more information on the JINR-South Africa partnership, see the following link <http://www.nrf.ac.za/joint-institute-nuclear-research-jinr>.

Types of Support

This framework document is aimed at providing guidance to researchers and students to apply for support in the following two categories:

1. Travel grants for approved JINR focussed projects: postgraduate students

The applicants in this category are individual South Africa-based postgraduate students. The purpose of this grant is to allow postgraduate students to conduct long-term research as well as establish collaboration at JINR Labs.

Eligibility criteria for postgraduate students:

- **The applicants must have completed a Masters degree or be registered for a PhD, and currently conducting postgraduate studies at a South African based institution;**
- The proposal should be of scientific and technical merit;
- The proposal should include framework for establishing long-term collaboration with JINR researchers;
- Priority will be given to applicants based at historically disadvantaged institutions (HDIs) and female researchers;
- Grants under this category will only cover airfares for students travelling to JINR on short or long term collaborative projects;
- Application for travel grants by students must be accompanied by a confirmation of the scheduled visit from JINR and a letter confirming JINR support for accommodation and living expenses;
- A letter of support from the institution must be submitted.
- A HoD/Dean/Direct Manager's Endorsement must be submitted.
- Applications that do not have all required supporting documents by the time of submission will be disqualified and will not be taken up for evaluation by the NRF.

2. Travel grants for Researchers

The applicants in this category are individual South Africa-based researchers (emerging or established researchers) intending to travel to the JINR laboratories, or requesting funding to host JINR research leaders in South Africa in order to build local expertise in their field.

Eligibility criteria for researchers

The review panel will evaluate each application based on the following criteria:

- Illustrate the value to be derived from the visit and the possibility of initiating long-term collaboration;
- The researcher must be a leader in their field of research;
- The proposal should be of scientific and technical merit;
- The proposal should show potential impact of the research / national priority;
- The applicant must clearly indicate their preferred theme of research;
- The proposal should promote equity and redress / capacity building (i.e. training of South African postgraduate students at Masters and Doctoral level);
- **The applicant must be in possession of a Doctoral degree;**
- Grants under this category will only cover airfares for researchers travelling to/from JINR on short- or long-term collaborative projects;

- A copy of the invitation to the visitor(s) and a copy of the provisional acceptance of the invitation from the visitor(s), the CV of the visitor, confirmation of JINR support for accommodation and living expenses, must be submitted;
- A HoD/Dean/Direct Manager's Endorsement must be submitted;
- For applicants with existing agreements with JINR – submit a copy of the agreement;
- Applications that do not have all required supporting documents by the time of submission will be disqualified and will not be taken up for evaluation by the NRF.

Processing and Decisions

In line with the NRF's endeavour for a fair and objective granting process, all applications are subjected to the following:

- Applicants will be supported for a maximum of two events/activities per call;
- Applications will be considered for support for travel taking place between 1 September 2016 to 31 May 2017;
- Given the competitive nature of the programme and budgetary limitations, funding is not guaranteed;
- **Co-investment from own/ other sources should be clearly indicated in the application;**
- Applications by researchers need to be endorsed by the applicant's Institutional Research Office;
- Application for travel grants by researchers must be accompanied by a confirmation of the scheduled visit from JINR and a letter confirming JINR support for accommodation and living expenses;
- A panel consisting of external and internal reviewers will assess and select applications according to the stipulated criteria.

Application procedure

- Applications should be submitted electronically on the NRF Online Submission System at <https://nrfs submission.nrf.ac.za> – South Africa – Joint Institute for Nuclear Research (JINR) – Mobility Grants for Researchers and Postgraduate Students 2016;
- Register/Login using your ID number and password;
- Go to My Applications and select Create new application;
- Select the call for which you are applying for: South Africa – Joint Institute for Nuclear Research (JINR) – Mobility Grants for Researchers and Postgraduate Students 2016;
- Complete all sections of the application;
- Please attach the necessary documents in **PDF format**;
- Should you not follow the guidelines for attaching the necessary supporting documents, your application may not be considered;
- Remember to submit your application on completion;
- Incomplete applications will not be considered;
- All applications should be submitted by 12 August 2016. **No application will be accepted beyond these dates**;
- The NRF will not be held liable for server/IT problems experienced by any institution for non-submission of applications;
- **Applications submitted as hard copies or by email will not be accepted and will automatically be disqualified**;
- The next mobility call will be launched in March 2017.

Acceptance of Grant Conditions (AoC)

An appropriate hard copy of the AoC will accompany each formal letter of award. This should be signed by both the grant holder and the Designated Authority at the institution. The AoC should be returned to the NRF within 30 days of receipt or before funding is disbursed. Failure to comply may result in the NRF cancelling the award.

Reporting and Payments

- NRF support should be acknowledged in all publications (including World Wide Web pages) and presentations (oral or poster). Use of the NRF logo should be according to the branding policies of the organisation (contact Mr Thabiso Nkone at Thabiso.nkone@nrf.ac.za for further details);
- A **student attendance register is required** to be made available during the event according to the format as shown in the call guide. This should include detailed information providing name, department, institution, study level and demographics;
- Each event should be reported upon no later than 30 days after the event, using the prescribed JINR template to be made available to funded students;
- Applicants who have not submitted previous reports to the NRF will not be considered for future funding.

Contact Details

All queries or comments about this call should be addressed to:

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