

The University of KwaZulu-Natal (UKZN) is committed to meeting the objectives of Employment Equity to improve representivity within the Institution. Preference will be given to applicants from designated groups in accordance with our Employment Equity Plan.

COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE

POSTDOCTORAL FELLOWSHIP

ASTROPHYSICS RESEARCH CENTRE (ARC)

1 January 2023 – 31 December 2023

SCHOOL OF MATHEMATICS, STATISTICS AND COMPUTER SCIENCE

HOWARD COLLEGE CAMPUS

REFERENCE NO.: MSCS05/2021

The Astrophysics Research Centre pursues both a theoretical and experimental approach to studies of the gravitational field. A post doctoral fellow is sought to support the theoretical and mathematical areas of the Centre. The Centre staff pursue advanced studies on extended field theories such as Lovelock gravity, Einstein-Gauss-Bonnet gravity, $f(R, T)$ theory, Rastall theory and other modified theories. A number of fascinating unsolved problems exist in these directions and the use of computer algebra tools such as Mathematica, Maple, GrTensor II have opened up new avenues of study. The fellow is expected to strengthen the Centre's research interests in these areas and to also infuse novel ideas on field theory amongst faculty and students. The fellowship is for the 2023 academic year, with the possibility of extension to 2024 based upon satisfactory outputs of the successful candidate.

The incumbent will report to Prof. S. Hansraj.

Minimum Requirements:

- PhD in the relevant area of General Relativity/ Mathematical Relativity/ Relativistic Astrophysics
- Reasonable publication outputs in high quality journals post PhD
- Experience in making presentations of your research at local and international meetings
- Willingness to participate in the Centre's broad research activities internally such as talks, colloquia, assisting with supervising post-graduate students.
- Excellent writing, communication and computer skills

Enquiries and details regarding the post may be directed to Prof. S. Hansraj at email: hansrajs@ukzn.ac.za; Tel. +2731 260 1006/ +27832324781.

The postdoctoral fellowship is for 12 months (renewable for another one year), worth R200 000 (tax-free) per annum, usually paid in the form of a monthly stipend. It is made available by the National Research Foundation (NRF) of South Africa and due reporting procedures will be followed.

The closing date for receipt of applications 15 August 2022.

Applicants are required to submit the following:

- (i) a covering letter highlighting their experience in meeting each of the minimum requirements as listed above.
- (ii) a detailed CV including the list of publications
- (iii) contact details of two referees
- (iv) a copy of the applicant's doctoral degree certificate or PhD award letter.
- (v) a certified copy of the applicant's ID / permanent residency document. Foreign candidates must be in possession of relevant permits.

Applications must be emailed to the school research and higher degree administrator (Mrs. Shereen Marimuthu), email: Marimuthus@ukzn.ac.za, before the closing date. The subject line must clearly indicate the reference no. MSCS05/2021. Late applications will not be considered. Successful individuals will be contacted on or before 31 August 2022. Successful candidates are expected to assume office on 1 January 2023. An online interview will take place. The research group reserves the right not to make an appointment to this advert. Should you not receive a reply or update by the 31 August 2022, kindly consider that your application has not been successful.