



POSTDOCTORAL RESEARCH FELLOWSHIP [PDRF] 2023

**School of Mathematical and Statistical Sciences
Faculty of Natural and Agricultural Sciences
Pure and Applied Analytics (PAA) Research Unit**

A full-time postdoctoral position is available in the Focus Area for Pure and Applied Analytics, Faculty of Natural and Agricultural Sciences, at the North West University (NWU), South Africa. The fellowship will enable an outstanding doctoral graduate to obtain experience in research and innovation in Algebraic Coding Theory. The successful candidate is expected to use modular representation theory to find error-correcting codes admitting a finite group as a primitive permutation group and study the linear codes that appear as 2-representations of finite primitive groups and determine their properties such as the minimum distances and weight distributions.

The fellowship is available for one year with a possibility of renewal for two additional years depending on the productivity of the candidate.

ELIGIBILITY CRITERIA:

- Open to all South African and foreign nationals.
- Graduated with a PhD degree in mathematics (group theory) within the last five years.
- A proven track record in research with publications in high quality journals.
- Having knowledge of Computer algebra software GAP and MAGMA.
- Having knowledge of representation theory and coding theory.

Successful applicants:

- May not hold full-time salaried employment during the fellowship.
- Must be able to relocate to the NWU (Mahikeng campus) for the duration of the fellowship.
- Must contribute to the research productivity of the PAA Abstract Algebra research group in the Focus Area for PAA including mentoring postgraduate students.

To apply, please email the following documentation by 30th of March 2023 to thekiso.seretlo@nwu.ac.za:

- Full CV including a list of research publications.
- Copy of doctoral degree certificate and any other relevant certificate.
- Full transcript of recent academic records.
- Copy of ID (or copy of passport in case of foreign applicants)
- Contact details of two academic referees who have taught/supervised/mentored the candidate.

Closing date: 30th of March 2023.

Commencement of fellowship: 1st of July 2023 or as soon as possible thereafter.

For enquiries, please contact Professor TT Seretlo (E-mail: thekiso.seretlo@nwu.ac.za)