

**UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG  
FACULTY OF SCIENCE**

**SENIOR LECTURER in ASTRONOMY/ASTROPHYSICS and LECTURER  
in PHOTONICS/STRUCTURED LIGHT – TWO POSTS**

**SCHOOL OF PHYSICS**

The following two posts are available immediately: Senior Lecturer in Astronomy/Astrophysics and Lecturer in Photonics/Structured Light.

The School of Physics, the largest in the country, engages in internationally competitive research within very diverse fields, some emerging and some established, including theoretical and experimental high energy physics, materials physics, condensed matter physics, nuclear physics, astronomy, astrophysics and astro-particle physics, high-throughput electronics, photonics, space propulsion, and physics education. The School hosts three DST-NRF Chairs, is home to the Materials Physics Research Institute with significant experimental infrastructure, the Mandelstam Institute for Theoretical Physics, plays an important role in the Centre of Excellence in Strong Materials, and hosts the Gauteng node of the National Institute for Theoretical Physics. In addition, the School has an active teaching programme that reaches over 3000 students annually and an outreach programme that includes a Planetarium.

**Qualifications**

The Senior Lectureship in Astronomy/Astrophysics is a joint initiative with the South African Radio Astronomy Observatory.

A PhD, and evidence of an independent postdoctoral research profile in observational radio astronomy, including a strong publication record, are required. A background in or research plans connected to SKA science areas, including those to be explored by precursor instruments such as MeerKAT, is an advantage. Teaching experience and involvement in the supervision of postgraduate students are an advantage.

The Lecturer post is a Lectureship in Experimental Photonics, with an emphasis on Structured Light. The Structured Light group within the School of Physics is active in a range of research areas, including quantum optics, classical optics and laser optics, with emphasis on fundamental science, quantum entanglement, imaging, optical communication and metrology. The appointee will join the existing very active Structured Light group. See [www.structuredlight.org](http://www.structuredlight.org) for more details.

A PhD in optics/lasers/photonics, experience in one or more of: quantum optics, structured light, metrology, strong knowledge of spatial light modulators, Labview and Matlab, good computational and experimental skills and a publication record of research and impact in the field are requirements.

The following are an advantage: experience in structured light for metrology, quantum entanglement or quantum imaging; experience in working in applied, industrial and/or commercial projects. Candidates should ideally have post-doctoral experience or experienced a range of working environments or working roles. Teaching experience at undergraduate level and a track record of co-supervision/supervision of postgraduate students is desirable.

Final selection will be made on the basis of scholarship and potential to contribute to the work and reputation of the School.

**Duties**

Senior Lecturers and Lecturers are expected to pursue research, teach and participate in the administration of the School, Faculty and University.

**Applications:** Submit a cover letter accompanied by a detailed *curriculum vitae*, indicating research and teaching experience, NRF rating (if available), a research proposal and teaching portfolio, certified copies of all educational qualifications and identity document and the names and email addresses of 3 referees.

**To apply:** External applicants are invited to apply by registering their profile on the Wits i-Recruitment platform located at <https://irec.wits.ac.za> and submitting applications. Internal applicants are invited to apply directly on Oracle by following the path: iWits /Self Service Applications /"Apply for a job".

Enquiries: For further information contact the Head of School, Professor J.P. Rodrigues, email: [Joao.Rodrigues@wits.ac.za](mailto:Joao.Rodrigues@wits.ac.za)

**Correspondence will be entered into with short-listed candidates only. Short-listed applicants must be available for a personal or telephonic interview.**

**Closing date: Monday, 10 September 2018**

The University reserves the right not to make an appointment and continue searching after the closing date and only short-listed candidates will be contacted.

*“The University is committed to employment equity. Preference will be given to appointable applicants from underrepresented designated groups in terms of the relevant employment equity plan and policies of the university”*

**♿ Committed to excellence and equity**