

Opportunities in Physics for young researchers in SA and at UJ

By Jasper Snyman



Young researcher, Jasper Snyman, in the entrance hall of the Physics Department at UJ. Jasper is currently registered for a PhD under the supervision of Prof Strydom and has a UJ New Gen Scholarship.

When people think about careers it is usually the well known (and well paid) professions such as law, engineering and accountancy that are foremost in their minds. However, few people realise that being a scientist is a viable and extremely attractive career choice in South Africa, and the rest of the world. Since its inception, the National Research Foundation (NRF) in collaboration with various governmental departments have actively pursued the training and development young scientists in South Africa, across a broad spectrum of disciplines. This is evidenced by the large number of bursaries that the NRF offers post graduate students who wish to become scientists (the Scarce Skills and Prestigious and Equity bursary schemes to name but a few). Furthermore there is a world wide shortage of trained scientists, as a cursory search of 'available post-doctoral positions' on the internet will quickly show.

Traditionally, scientists are affiliated to either a tertiary, national or international research institution where they are paid to do interesting research. However, other career options are also available. Developing new technology and successfully commercialising it may be an immensely profitable endeavour, while the analytical skills of physicists are highly sought after in the financial, logistics and management sectors of the economy.

Now with all the opportunities out there in South Africa, why should UJ Physics be the best place to further your post graduate studies?

Over the past century Physics have developed along three primary areas of interest. These areas are particle and nuclear physics (investigating the atomic and sub-atomic world) condensed matter physics (what happens when lots and lots of atoms come together to form solids, fluids and plasmas) and astrophysics (how did the universe, and all these atoms, originate in first place?). The physics department at the University of Johannesburg is one of the few places on the African continent where you can do a post-graduate degree in all three of these major fields. This means that you immediately participate in research which is of interest to the global physics community. Furthermore, the research done in the department is internationally well recognized, as evidenced by the many international collaborations in which the researchers within the department are active. These collaborations include prestigious institutions such as the Large Hadron Collider at CERN in Switzerland, the Max Plank institute in Dresden, Germany, UCSD in San Diego USA, California and SALT in Sutherland, South Africa (the latter being internationally renowned as one of the best sites in the world from which to observe the Southern sky). What this means is that a post-graduate degree in Physics from the University of Johannesburg is your passport to a global community of scientists, hoping to make the next big discovery that will change the world, or cross the next frontier in our fundamental understanding of the universe and literally everything contained within it.

Note: UJ offers great postgraduate bursaries, contact UJ Physics for more information.