

CONTACT US!

We would be absolutely delighted to tell you more about our work or about opportunities to study and do research in theoretical physics at Stellenbosch University.

Up-to-date information is always available on the website of the Institute:

<http://www.physics.sun.ac.za/theory>

or write to:

PROF. K. K. MÜLLER-NEDEBOCK
INSTITUTE OF THEORETICAL
PHYSICS
STELLENBOSCH UNIVERSITY
PRIVATE BAG XI
MATIELAND, STELLENBOSCH
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**Institute of
Theoretical Physics**

University of
Stellenbosch



Theoretical Physics at Stellenbosch University

THE INSTITUTE OF THEORETICAL PHYSICS

Theoretical physics at Stellenbosch University has a rich tradition and history. A broad and dynamic range of fields is being actively studied.

The activities of our members are closely linked to those of the National Institute of Theoretical Physics, whose main node is also located in Stellenbosch.

THE HISTORY

The Institute of Theoretical Physics (originally named Institute of Theoretical Nuclear Physics) was founded in 1984 with the support of the Nuclear Development Corporation of South Africa.

The fundamental objectives of the Institute still are to undertake research projects in theoretical physics, to assist in the education of graduate students and to provide a centre for the development and co-ordination of activities in theoretical physics in the Physics Department and elsewhere.

OUR RESEARCH

Research in theoretical physics includes, but is certainly not restricted to, aspects of field theory, statistical and condensed matter physics. Some current topics are:

- Quantum phase transitions and exceptional points,
- Gauge theories,
- Complex systems,
- Biophysics and polymer physics,
- Hadronic systems and
- Cascades and multifractals.

FOR EXAMPLE...

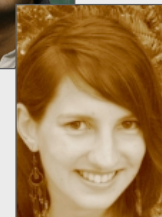
Hannes Kriel works on aspects of the quantum Hall effect.



Leandro Boonzaaier is trying to understand electrolytes and the effects of molecular motors.



Jani Geyer is looking at energy surfaces in certain types of models.



OUR GRADUATE DEGREE PROGRAMMES

On the post-graduate level we offer:

- a *B.Sc.Hons. in Theoretical Physics* course,
- *M.Sc.* and *Ph.D.* research in theoretical physics and physical and mathematical analysis with research in any of the fields of the academic staff of the Physics Department, but also with interdisciplinary work.

COLLABORATION

Many members of the Institute of Theoretical Physics are also active in

- the National Institute for Theoretical Physics and
- the African Institute for Mathematical Sciences.

