

Computational Physics and High Performance Computing

08:00 – 17:00

Winter School

12 July 2011

Programme

08:00 – 08:30 Registration

08:30 – 08:45 Welcome and Opening : Chair of the Physics Department, UNISA

Session A : Computational Approaches in Physics Tuition

Chair : Prof. I. Basson

08:45 – 09:30 Speaker : Prof. Wolfgang Christian (Davidson College - USA)
Lecture : Computational Physics And The Physics Curriculum

09:30 – 09:45 Discussion

09:45 – 10:30 Speaker : Prof. Fransisco Esquembre (University of Murcia - Spain)
Lecture : Easy Java Simulations: A Computational Tool For Science Education
and Research

10:30 – 10:40 Discussion

10:40 – 11:00 Tea Break

Session B : Computational Approaches in Theoretical Physics**Chair : Prof. A. Botha**

11:00 – 11:45 Speaker : Dr. Debashish Mukherji (Max-Planck Institute - Germany)
Lecture : Molecular Dynamics Simulations : An experimental laboratory
for a computational physicist.

11:45 – 12:00 Discussion

12:00 – 12:45 Speaker : Prof. Moritz Braun (University of South Africa – RSA)
Lecture : Using Python in Computational Physics

12:45 – 13:00 Discussion

13:00 – 14:00 Lunch Break

Session C : High Performance Computing in Physics**Chair : Prof. M. L. Lekala**

14:00 – 14:40 Speaker : Prof. Enrico Lombardi (University of South Africa – RSA)
Lecture : High Performance Computing in Solid State Physics

14:40 – 14:50 Discussion

14:50 – 15:30 Speaker : Dr. Daniel Moeketsi (Center for High Performance Computing – RSA)
Lecture : Overview of the Center for High Performance Computing

15:30 – 15:40 Discussion

15:40 – 16:00 Tea Break

16:00 – 16:45 Speaker : Dr. Daniel Moeketsi (Center for High Performance Computing – RSA)
Lecture : Practical demonstrations on the use of the CHPC Cluster.

16:45 – 17:00 Discussion

18:30 – 21:00 Welcoming Function !!! Welcoming Function !!! Welcoming Function !!!
