High Energy Particle Physics Workshop

February 11th-13st 2015, iThemba LABS - Gauteng

The goal of this workshop is to give opportunity for students and young researchers to give presentations and to write proceedings. A morning plenary session, followed 15+10 minute presentations, shall be the format across our three days. The topics to be covered will be high-energy theory and phenomenology (heavy ions, pp, ep, ee collisions), ATLAS physics and ALICE physics. Given the format, it is expected that all MSc and PhD students will have a chance to present to their peers and senior physicists. It is envisioned to provide Honors and undergraduate students with the opportunity to perform poster presentations.

Registration and funding opportunities:

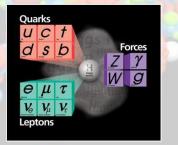
The event is open to anyone. There are funding opportunities for students outside the Gauteng Province. Visit the workshop's website for more information: http://hep.wits.ac.za/HEPPW2015.php

Local Organising Committee:

Zinhle Buthelezi (iThemba LABS) Alan Cornell (Nithep/Wits, Co-chair) Andrew Hamilton (UCT) Deepak Kar (Wits) Bruce Mellado (Wits, Co-Chair) Elias Sideras-Haddad (Wits) W. A. Horowitz (UCT) Sahal Yacoob (UKZN)

Venue:

iThemba LABS - Gauteng Cnr Jan Smuts Ave & Empire Road, Braamfontein 2001, Johannesburg http://www.tlabs.ac.za/gauteng-labs-directions/ Catering will be provided at: Wits Professional Development HUB 92 Empire Road, Braamfontein 2001, Johannesburg http://wits-enterprise.co.za/welcome-to-the-witsprofessional-development-hub/









High Energy Particle Physics Workshop 2015

11-13 February 2015 Other Institutes Africa/Johannesburg timezone

Search

https://indico.cern.ch/event/367368/

Overview

Scientific Programme

Timetable

Contribution List

Author List

My Conference

My Contributions

Video Services

The goal of this workshop is to give opportunity for students and young researchers to give presentations and to write proceedings. A morning plenary session, followed 15+5 minute presentations, shall be the format across our three days. The topics to be covered will be high-energy theory and phenomenology (heavy ions, pp, ep, ee collisions), ATLAS physics and ALICE physics. Given the format, it is expected that all MSc and PhD students will have a chance to present to their peers and senior physicists. It is envisioned to provide Honors and undergraduate students with the opportunity to perform poster presentations.

Starts 11 Feb 2015 09:00 Ends 13 Feb 2015 13:30 Africa/Johannesburg Other Institutes iThemba LABS - Gauteng

Poster

Cnr Jan Smuts Ave & Empire Road, Braamfontein

Private Bag11, WITS 2050, South Africa

Cornell, Alan Mellado Garcia, Bruce



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| 09:00 | DVC research | Prof. Zeblon VILAKAZI |
|-------|--|-----------------------------|
| | iThemba LABS - Gauteng, Other Institutes | 09:00 - 09:10 |
| | Welcome from the SAIP | Dr. Igle GLEDHILL |
| | iThemba LABS - Gauteng, Other Institutes | 09:10 - 09:20 |
| | Welcome from the Head of the School of Physics | Prof. John CARTER |
| | iThemba LABS - Gauteng, Other Institutes | 09:20 - 09:35 |
| | Introduction and structure of the workshop | Bruce MELLADO GARCIA et al. |
| | iThemba LABS - Gauteng, Other Institutes | 09:35 - 09:45 |
| | Overview of iThemba facilities | Simon MULLINS |
| 10:00 | | |
| | | |
| | iThemba LABS - Gauteng, Other Institutes | 09:45 - 10:30 |
| | Coffee | |
| | iThemba LABS - Gauteng, Other Institutes | 10:30 - 11:00 |
| 11:00 | Heavy Ion Theory | Muronga AZWINNDINI |
| | | |
| | iThemba LABS - Gauteng, Other Institutes | 11:00 - 11:45 |
| | Heavy Ion Experiment | Tom DIETEL |
| 12:00 | | |
| | | |
| | iThemba LABS - Gauteng, Other Institutes | 11:45 - 12:30 |
| | Lunch | |
| | | |
| 13:00 | Lunch at the PDH ac | ross the road |

| Jets of light hadrons via AdS/CFT correspondence | Razieh MORAD |
|--|----------------------------|
| iThemba LABS - Gauteng, Other Institutes | 13:30 - 13:50 |
| Using a Classical Gluon Cascade to study the Equilibration of a Gluon-Plasma | R MCCONNEL |
| iThemba LABS - Gauteng, Other Institutes | 13:50 - 14:10 |
| Short path length and running coupling pQCD corrections to energy loss in th | Isobel KOLBE |
| iThemba LABS - Gauteng, Other Institutes | 14:10 - 14:30 |
| Finite time calculations for hard parton production relevant to the QGP | Ben MEIRING |
| iThemba LABS - Gauteng, Other Institutes | 14:30 - 14:50 |
| Review of jet reconstruction algorithms | Ryan ATKIN 📄 |
| iThemba LABS - Gauteng, Other Institutes | 14:50 - 15:10 |
| Coffee | |
| iThemba LABS - Gauteng, Other Institutes | 15:10 - 15:40 |
| Simulation of microscopic black-hole production at the LHC | Mr. Warren Anthony CARLSON |
| iThemba LABS - Gauteng, Other Institutes | 15:40 - 16:00 |
| Quasi-normal Modes for Spin 3/2 Fields | Gerhard HARMSEN |
| iThemba LABS - Gauteng, Other Institutes | 16:00 - 16:20 |
| Single Top and Double Higgs Boson Production in ep Collisions | Mukesh KUMAR |
| iThemba LABS - Gauteng, Other Institutes | 16:20 - 16:40 |
| Understanding the Higgs Boson with the Large Hadron Electron Collider | Jonathan ESTEVES 📄 |
| iThemba LABS - Gauteng, Other Institutes | 16:40 - 17:00 |

| 09:00 | Theoretical overview of pp collision physics results | Alan CORNELL |
|-------|--|---------------|
| | | |
| | iThemba LABS - Gauteng, Other Institutes | 09:00 - 09:45 |
| | Review of ATLAS Physics Results | Deepak KAR |
| 10:00 | | - |
| | | |
| | iThemba LABS - Gauteng, Other Institutes | 09:45 - 10:30 |
| | Coffee | |
| | iThemba LABS - Gauteng, Other Institutes | 10:30 - 11:00 |
| 11:00 | The discovery of the Standard Model Higgs boson and its properties Xolisile Oc | tavia THUSINI |
| | iThemba LABS - Gauteng, Other Institutes | 11:00 - 11:20 |
| | Measurement of the properties of Higgs boson in two photon final state in ATLAS | Xifeng RUAN |
| | iThemba LABS - Gauteng, Other Institutes | 11:20 - 11:40 |
| | Measurement of the Higgs Boson Transverse Momentum in the Di-photon Channel Robert with the ATLAS detector | Graham REED |
| 12:00 | Measurement of the Higgs Boson Transverse Momentum and its Sensitivity to New D Physics Beyond the Standard Model | GOSSMAN 🖻 |
| | Higgs Production through Gluon Fusion and Plausible Dark Matter Stefan Erich VON B Studies | UDDENBROCK |
| | Lunch | |
| 13:00 | | - |
| 15.00 | Lunch at the PDH across the road | 4 |
| | Eulion at the FBH across the road | |
| | | |
| | | 12:40 - 14:00 |

| 14:00 | Missing PT reconstruction at ATLAS Claire LEE |
|-------|--|
| | iThemba LABS - Gauteng, Other Institutes 14:00 - 14:20 |
| | Performance of missing transverse momentum reconstruction in ATLAS studied in Luis MARCH RUIZ proton-proton collisions in 2012 at 8 TeV |
| | Large AT without Dessert Ammar ABDALGABAR |
| | iThemba LABS - Gauteng, Other Institutes 14:40 - 15:00 |
| 15:00 | Results of the search for an A boson decaying to Zh, with an Iltautau final state, in pp collisions at 8 TeV centre of mass energy recorded with the ATLAS experiment |
| | $\label{eq:measurement} \begin{tabular}{lllllllllllllllllllllllllllllllllll$ |
| | iThemba LABS - Gauteng, Other Institutes 15:20 - 15:40 |
| | Coffee |
| 16:00 | iThemba LABS - Gauteng, Other Institutes 15:40 - 16:10 |
| | Radiation hardness of plastic scintillators for the Tile Calorimeter of the ATLAS detector Harshna JIVAN |
| | iThemba LABS - Gauteng, Other Institutes 16:10 - 16:30 |
| | Studying the Radiation Damage of Plastic Scintillators using EPR Chad Dean PELWAN |
| | iThemba LABS - Gauteng, Other Institutes 16:30 - 16:50 |
| | Study of Radiation Hardness of Plastic Scintillators fro the Upgrade of the Tile Shell-May LIAO |
| 17:00 | Calorimeter of the ATLAS detector |
| | A study of radiation damage in the on-detector electronics of the ATLAS detector Thokozani KHUMALO using a (p,n) nuclear reaction in the Van Der Graf tandem linear accelerator at iThemba LABS, Gauteng |

Workshop's Banquet, 6:30 pm. http://www.mikeskitchenparktown.co.za



| 09:00 | Design of a new front-end electronics test bench for the upgraded ATLAS Chamunorwa Oscar KUREBA detector's Tile Calorimeter |
|-------|--|
| | Development and Testing of a High Data Throughput ADC Board for the Prometeo Matthew SPOOR Portable Test-bench System for the Certification of the ATLAS Tile Hadronic Matthew SPOOR Calorimeter Calorimeter |
| | Optimal Filtering on ARM for ATLAS Tile Calorimeter Front-End Processing Mitchell Arij COX |
| | iThemba LABS - Gauteng, Other Institutes 09:40 - 10:00 |
| 10:00 | PGAS in-memory data processing for the Processing Unit of the Upgraded Daniel OHENE-KWOFIE Electronics of the Tile Calorimeter of the ATLAS Detector Daniel OHENE-KWOFIE |
| | Coffee |
| | iThemba LABS - Gauteng, Other Institutes 10:20 - 10:50 |
| | Using GPGPU to Increase Accessibility and Efficiency in LHC Computational Systems Marc SACKS |
| 11:00 | iThemba LABS - Gauteng, Other Institutes 10:50 - 11:10 |
| | Atlas Nightly on Arm Joshua Wyatt SMITH |
| | iThemba LABS - Gauteng, Other Institutes 11:10 - 11:30 |
| | The Data Acquisition system for a fixed target experiment at the NICA Kehinde Gbenga TOMIWA Complex at JINR and its connection to the ATLAS TileCal readout electronics |
| | An Integration Framework Tool for ATCA's in the ATLAS Detector Control System Robert Graham REED |
| 12:00 | iThemba LABS - Gauteng, Other Institutes 11:50 - 12:10 |

Lunch at the PDH across the road. Those leaving to the airport will receive lunch boxes at 12:00. Leaving at 12:30

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