

ADDENDUM

to

**THE MEMORANDUM OF UNDERSTANDING
FOR A MULTI-LATERAL COLLABORATION**

between

**THE INSTITUTIONS AND FUNDING
AGENCIES OF THE CTF3 COLLABORATION**

concerning

**THE CONTRIBUTION OF THE DEPARTMENT
OF PHYSICS AT UNIVERSITY OF ANTANANARIVO-MADAGASCAR
TO THE CLIC/CTF3 COLLABORATION**

19/09/2013

CONSIDERING:

The Memorandum of Understanding ("the MoU") defining the framework applicable to the construction of a 3rd generation Compact Linear Collider Test Facility (CTF3) and the performance of Experiments to demonstrate the feasibility of key issues of the CLIC scheme;

That Article 1.2 of the MoU envisages Addenda defining each contribution pledged to the CTF3 Collaboration,

THE DEPARTMENT OF PHYSICS AT UNIVERSITY OF ANTANANARIVO - MADAGASCAR REPRESENTED BY Hery Tiana Rakotondramanana in its capacity as Member of the CTF3 Collaboration, **HEREWITH AGREES** to make the following contributions:

To support a PhD student to work on background in the CLIC detector. CERN agrees to support the student for a first stay at CERN of 6 months. During this period, a monthly allowance of 3679 CHF will be paid by CERN to the student. A second visit of similar length and conditions is foreseen later, provided the work progresses satisfactorily.

The Department of Physics at University of Antananarivo agrees to provide academic support and co-supervise the PhD student for his stay in Madagascar carrying out PhD research. At the Department of Physics, the work will be focused on theoretical aspects and eventual data analysis.

The work will consist of a re-parameterization of the hadronic background generation at a CLIC experiment using GUINEA-PIG and PYTHIA and a study of the impact of beam-induced background on the measurement precision of a physics process at CLIC.

This Addendum shall form an integral part of the MoU.

Done in Antananarivo on:

For the Department of Physics,
University of Antananarivo- Madagascar:



The Head of Department of Physics,
Dr. Hery Tiana Rakotondramanana

For the CLIC Collaboration:



Prof. Steinar Stapnes,
Linear Collider Study Leader



The Dean of the Faculty of Sciences
Pr. Marson Raherimandimby



The President of University
Pr. Panja Armand René Ramanoelina