### **ADDENDUM 2**

to

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

between

# THE INSTITUTIONS AND FUNDING AGENCIES OF THE CLIC-CTF3 COLLABORATION

concerning

THE CONTRIBUTION OF SLAC
TO THE CTF3 COLLABORATION

Date

29th October 2009

#### CONSIDERING:

The Memorandum of Understanding ("the MoU") defining the framework 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 CLIC-CTF3 Collaboration,

SLAC NATIONAL ACCELERATOR LABORATORY, UNITED STATES, REPRESENTED BY JOHN SHEPPARD, in its capacity as Member of the CLIC-CTF3 Collaboration, HEREWITH AGREES to make the following contributions:

In the period May, 2009 through September, 2010

CLIC Work Package

#### 1. Demonstration of CLIC polarized electron beam:

Scope/Deliverables: Full charge extraction of polarized electrons suitable for use as the CLIC electron source. This work will be accomplished in part by modifying the existing Flash-Ti laser system to produce a 156 ns, cw optical pulse which is in turn amplified to the requisite power level. The modified laser system will be used to illuminate cathodes in the existing 120 kV dc gun located in the SLAC B006 Gun Test Facility. In addition, rf capture will be simulated using Parmela to both estimate the overall capture efficiency and to specify the design requirements of the bunching and capture systems. SLAC will work with the CLIC source group to develop performance specifications.

#### Milestones:

July 09: photo-cathode and dc gun operational

August 09: laser system operational

September 09: measurements of the extracted charge and the polarization.

Total Effort:

FY09: 9 FTE- weeks

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The total amounts to 0.4 man\*years over this period.

This Addendum shall form an integral part of the MoU.

Done in California on:

Tor Raubenheimer

For SLAC

Jean-Pierre Delahaye

For CERN