ADDENDUM

to

THE MEMORANDUM OF UNDERSTANDING
FOR A MULTI-LATERAL COLLABORATION

between

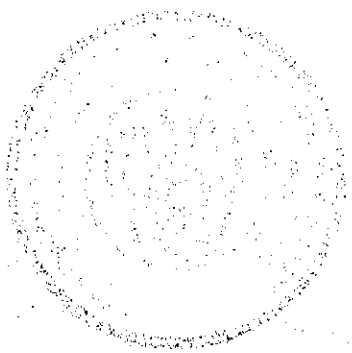
THE INSTITUTIONS AND FUNDING
AGENCIES OF THE CTF3 COLLABORATION

concerning

the second phase of

THE CONTRIBUTION OF THE INSTITUTE OF APPLIED PHYSICS
(IAP) OF THE RUSSIAN ACADEMY OF SCIENCES

TO THE CLIC/CTF3 COLLABORATION



December 2008

CONSIDERING:

The Memorandum of Understanding ("the MoU") defining the framework applicable to the construction of a 3rd generation Compact Linear Collider 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 defining each contribution pledged to the CTF3 Collaboration,

The Institute of Applied Physics (IAP), in its capacity as a Member of the CTF3 Collaboration, **HEREWITH AGREES** to make the following contributions in the development and improvement of parameters of the photoinjector laser setup at CERN:

1. Optimization of harmonics generation stages with existing configuration of amplifiers.

2. Modification of the laser amplifier configuration of the second amplification stage so that output laser beams would deliver more power and better beam structure.

3. Measurements on characterization of the actual laser amplifiers followed by modeling the amplification process and proposal for further improvement of the laser system performance.

IAP will design and manufacture following hardware required for installation at CERN: non-linear crystals, Faraday rotator, "soft" diaphragms. The cost of manpower (15000 Euros) for design and manufacture will be covered by IAP. The cost of materials for this hardware is in the amount of 15000 Euros shall be paid to IAP upon its delivery and installation at CERN. Installation should be performed in April-May, 2009.

CERN will provide payments of a daily subsistence for IAP personnel during their work at CERN in the amount of up to 3 man-months.

Following the results obtained on the completion of this stage, the possibilities of IAP contribution to further laser development and upgrade will be considered. The key points of this development are amplification of short bunches, the feedback stabilization, the phase-coding, 50Hz repetition rate regime.

This Addendum shall form an integral part of the MoU.

Done in Nizhny Novgorod on 2008 – 12 – 01

J.P. Delahaye

For CERN:
The CLIC study leader
Professor J.P.Delahaye

For the INSTITUTE OF APPLIED PHYSICS (IAP)
Director,
Professor A.G. Litvak