

Addendum No. 3
to the
Memorandum of Understanding
for Collaboration in the Construction of the TOTEM Detector

and

Addendum No. 3
to the
Memorandum of Understanding for
Maintenance and Operation of the TOTEM Detector

Participation of
The AGH University of Science and Technology, Krakow,
Poland

Considering that:

The construction of the TOTEM detector is governed by a Memorandum of Understanding (MoU) setting out the responsibilities of the different participating Institutes and Funding Agencies for the construction of the TOTEM detector (Memorandum of Understanding for Collaboration in the Construction of the TOTEM Detector, CERN-RRB-2006-002, hereinafter referred to as "the Construction MoU").

The maintenance and operation of the TOTEM detector are governed by a Memorandum of Understanding setting out the responsibilities of the different participating Institutes and Funding Agencies for maintenance and operation of the TOTEM detector (Memorandum of Understanding for Maintenance and Operation of the TOTEM Detector, CERN-RRB-2007-110, hereinafter referred to as "the M&O MoU").

As stated in the Preamble of the M&O MoU, while the Construction MoU remains valid, its provisions take precedence over those of the M&O MoU.

It is agreed as follows:

1. Introduction

- 1.1 The AGH University of Science and Technology in Krakow, Poland hereinafter referred to as AGH), Computer Science Department has applied to join the TOTEM Collaboration via a Letter of Intent which was positively evaluated by the TOTEM Collaboration Board on 28 May 2013 and its application was approved by the TOTEM Collaboration Board at its meeting on 13 June 2013.
- 1.2 The purpose of this Addendum is to lay down the terms of collaboration of AGH in the TOTEM Collaboration in conformity with the Construction MoU and the M&O MoU.

2. Approval of Collaboration

- 2.1 The participation of AGH in the TOTEM Collaboration will be formalized by the TOTEM Resources Review Board (RRB) at its meeting on 29 October 2013.

3. Terms of Collaboration

- 3.1 The TOTEM team of AGH is represented by Prof. Krzysztof Zielinski and Jacek Kosinski (Construction MoU Annex 1, 2 and M&O MoU Annex 1, 2).

- 3.2 AGH is represented by Prof. Krzysztof Zielinski, Head of Department of Computer Science.
- 3.3 The contribution of AGH to TOTEM will comprise the following:
 - 3.3.1 M&O Cat. A contributions of approximately 20,000 CHF per year.
 - 3.3.2 Software development and data handling for detectors, office algorithms and for physics analysis.
 - 3.3.3 Manpower and in-kind contributions. At the time of signing this Addendum these are estimated to be 6 non-senior collaborators (Ph. D. and thesis students) in addition to the senior members working on software deliverables such as pattern recognition algorithms, data handling, release testing and mathematic techniques.
- 3.4 At the time of signing this Addendum, the following representatives of AGH are considered as members of the TOTEM Collaboration (Construction MoU Annex 4):

Prof. Krzysztof Zielinski, Jacek Kosinski, Przemyslaw Wyszowski and Leszek Grzanka.

4. Signatures

- 4.1 By their signature of this Addendum, AGH representatives accept all the terms of the Construction MoU and the M&O MoU, including in particular the procedure by which the annual M&O Category A contributions are estimated, scrutinised and approved (M&O MoU Article 10).

The European Organization for Nuclear Research (CERN)

and

**The AGH University of Science and Technology,
Krakow, Poland**

declare that they agree on the present Addendum to the Construction and M&O MoUs of the TOTEM experiment.

Done in Geneva

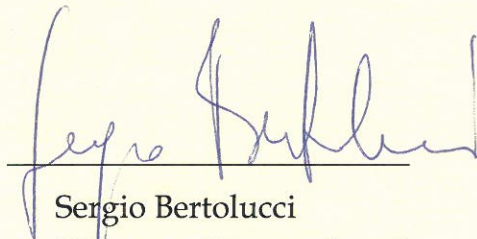
Done in Krakow

On date 20/06/2013

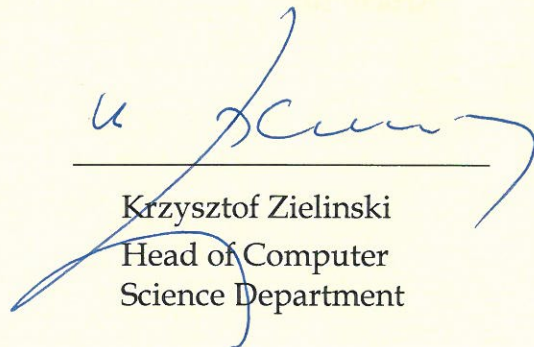
on date 25/06/2013

For CERN

For AGH



Sergio Bertolucci
Director of Research and
Scientific Computing



Krzysztof Zielinski
Head of Computer
Science Department