FTK-IAPP *General Assembly & Executive Board* Meeting - Pisa; Skype connection, April 5 - 2016 **MINUTES**

The following representatives have been invited to the GA:

Mauro Dell'Orso – UNIPI, Chair Kostas Kordas – AUTH, Member Alessandro Iovene – CAEN, Member Betty Magnin – CERN, Member Giovanni Calderini – CNRS, Member Petros Soukoulias – PRIELE, Member Simone Donati – UNIPI, Member present in Pisa connected by skype from AUTH present in Pisa connected by skype from CERN present in Pisa Absent present in Pisa

The following representatives have been invited to the EB:

Mauro Dell'Orso – UNIPI, Project Coordinator, Chair Kostas Kordas – AUTH, WP 7 Coordinator, Member Dimitrios Sampsonidis – AUTH, WP 8 Coordinator, Member Paola Garosi – CAEN, WP 2 Coordinator, Member Francesco Crescioli – CNRS, WP 6 Coordinator, Member Andreas Sakellariou – PRIELE, WP 1 Coordinator, Member Marco Piendibene – UNIPI, WP 5 Coordinator, Member Chiara Roda – UNIPI, WP 4 Coordinator, Member Betty Magnin – CERN, WP3 Coordinator, Member

present in Pisa
connected by skype from AUTH
connected by skype from AUTH
absent for maternity (CAEN)
connected by skype from Paris
connected by skype from Athens
present in Pisa
present in Pisa
connected by skype from CERN

Other Participants:

P. Giannetti, P. Luciano – INFN Pisa K. Mermikly - Prisma Electronics present in Pisa connected by skype from Athens connected by skype from AUTH

C. Gentsos, I. Maznas – AUTH coni S. Citraro, C.L. Sotiropoulou, G. Volpi, S. Gkaitatzis, UNIPI

present in Paris

The slides are available at the site https://agenda.infn.it/conferenceDisplay.py?confld=11192

This is the Agenda:

General Assembly

• 14:00 - 15:00 Last Report & Work plan for 2016 1h0', Paola Giannetti (INFN, Pisa)

Executive Board

- 15:00 15:20 Software activity at AUTH 20', Konstantina Mermikli (Prisma)
- 15:20 15:40 Mezzanine design at AUTH 20', Andreas Sakellariou (Prisma)
- 15:40 16:00 Conclusive summary of 2 year activity at AUTH 20', Naoki Kimura (AUTH)
- 16:00 16:20 Firmware for the AMBSLP 20'

Here follows a synthesis of the discussed arguments:

Secondments/ Declaration of Conformity - talk Paola Giannetti

The list of future secondments is discussed; necessary changes are discussed and approved to be submitted to the PO.

Internal redistribution of money is discussed: since AUTH will have to produce several months of contracts that in the initial plan were associated to CAEN and the money for those contracts was sent in 2015 at CAEN, AUTH asks to receive money from CAEN, to avoid the pre-financing of those contracts . Everybody agree about this plan: if the changes will be approved by the PO, the requested money should be sent to AUTH by CAEN.

The list of declarations of conformity is reviewed.

A new agreement for management money is established in favour of the project coordinator (UNIPI). A calculation of salary changes is discussed to guarantee they are compatible with the project budget.

Conference - Paper talk Paola Giannetti

Ongoing papers are presented. The list of items implements perfectly our plan discussed and approved at the last GA. The list of authors is proposed, discussed and approved for each item. Here follows the list:

- •Highly Parallelized Pattern Matching Execution for Event Real Time Reconstruction S. Citraro, N. Biesuz, P. Giannetti, P. Luciano, H. Nasimi, M. Piendibene, C.L. Sotiropoulou, Member, IEEE and G. Volpi published in April on TNS Paper on Amboard_v3, signed by highly contributing researchers (Annovi added recently).
- •Fast Tracker for Hadron Collider Experiments FP7 PEOPLE 2012 IAPP: Grant Agreement Number 324318 FTK; IAPP Consortium; submitted to DATE not published but our project has been invited to DATE (Booth + one talk by Calliope).
- •Highly Parallelized Pattern Matching Execution for the ATLAS Experiment; signed by all the collaborators that worked on the AM boards (HW SW) submitted to ATLAS & TNS for Real Time
- •A coprocessor for the Fast Tracker Simulation; signed by Christos and people working on the SLP1; submitted to Real Time 2016; plan to publish on TNS for Real Time
- •Brain Emulation for Image Processing; signed by people working on SW and HW for image processing; submitted to Real Time 2016 plan to publish on TNS for Real Time
- •High Performance Embedded System for Real Time Pattern Matching; signed by people working on HW for image; VCI proceeding
- Performances of a Real time Multipurpose 2 Dimensional Clustering Algorithm Developed for the ATLAS Experiment; signed by people working on 2D clustering; Mocast proceeding
- FTK; signed by all FTK people; Mocast proceeding.

The new interesting collaboration with students from computing science and Alessandra Retico for MRI imaging inside WP5 is shortly presented.

Deliverables & Milestones

Deliverables are discussed and assigned to people.

In red are signed the person in charge of these documents and the conferences were they will be submitted.

The deliverables just submitted in the recent progress report are:

D.4.4. Trigger table for demonstrator with performance prediction
https://cds.cern.ch/record/1755840/files/ATL-DAQ-INT-2014-005.pdf
D.5.1. Infrastructure at CAEN for Image Processing

R RE M26
PAOLA

D.4.5 SLP1 architecture simulation Summary IEEE Real Time-Paola Pub PU M28 - Paper for Christos the

D.5.2. Software & firmware ready for training and image processing R RE M30 PAOLA

Summary IEEE Real Time-Paola

The Deliverables in the second half of the year 2015 are:

D.1.2. 1st FTK production assembled at PRIELE TNS approved R RE M32

D.3.2. FTK first production commissioned Summary IEEE Real Time Pub PU M34 conference Pierluigi/

D.5.3. Performances of natural still image processing poster Vienna Pub PU M34 conference Calliope

The Milestones plan is:

2015 Program

- M.4.2. Trigger_performance_ok UniPisa I
- M.4.3. SLP1 architecture review UniPisa I
- M.1.3. 1° production ok at Priele PRIELE I
- M.1.4. SLP1 prototype ok at Priele PRIELE
- M.5.1. HW still-image processor ok UniPi
- M.3.2. 1° production ok at Cern CERN M3
- M.6.1. CAEN PS Atlas review CNRS M32 (

D.6.3.	Optimized power supplies and their characterization	Pub	PU Calderini	M34 Nov.
D.1.3.	SLP1 prototype constructed at PRIELEIEEE NSS Christos	Pub	PU Christos	M36 Jan.
D.4.6.	SLP1 detailed simulation Internal document	R	REChristos-Paola	M38 Mar.
D.5.4.	Results of tests on movie processing Real Time paper	Pub	_{PU} Calliope-Paola	_{M40} May
D.4.7.	Test Vectors for the SLP1 based FTK Internal document	R	RE Paola	M42 July
D.1.4.	2 nd FTK production assembled at PRIELE	R	RE Panagiotis	M42 July
D.3.3.	FTK second production commissioned PU at ICHEP	Pub	PU	M46 Nov.
D26	SLP1 fully integrated NSS for CMS?	Pub	PU Christos	M48 Jan.
D.5.5.	Results of tests on medical image processing NSS?	Pub	PU Calliope	M48 Jan.

M.5.2.	Natural movies processed by AM	Unil
M.5.3.	Medical images for AM	Unil
M.1.5.	2 nd production ok at Priele	PRIE
M.3.3.	2 nd production ok at Cern	CEI
M.2.5.	SLP1 ok at Caen	CAl

(1) OUTREACH – TOK –

Milestones: results verification of Open Days, Workshop day, Summer Schools results: very successful → see previous GA report (Nov 2015) for 2015 activities.

- (2) Soft Trainings \rightarrow see previous GA report (Nov 2015) for 2015 activities.
- (1) Next FTK Workshop, Training, Open day, Workshop for the public & IAPP school
 The outreach schedule already performed is presented and future events of the 2016 are
 discussed again.

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Kostas/Paola/Francesco
D.7.1. IAPP project open days UNIPI/LPNHE/AUTH R
                                                      PU M7, M19, M31, M43 August
D.7.2. Workshop days (for medical imag people) R CERN
                                                      PU M5, M17, M29, M41 June
D.7.3. Summer school weeks (AUTH in lab) R
                                                      PU M6, M18, M30, M42 July
D.7.4 D.8.3 World wide web site for dissemination R
                                                      PU
                                                          M6, M18, M30, M48 July
                  Status of Web site
                                     Kostas/Paola/Simone
D.8.1. FTK Workshops (@LPNHE) Francesco
                                                      RE'
                                                         M1, M13, M36, M46 March
D.8.2. Trainings (@LPNHE. Now, last is CERN)R Francesco RE
                                                          M1, M5, M9, M19, M26, M47
SOFT TRAININGS:
                                                             FTK session at Hipeak
Intellectual Property https://www.iprhelpdesk.eu/webinars
                             Paola
                                                              CSW in Milan September
ETHICS - MEDICAL IMAGING
SCIENTIFIC ENGLISH
                      Paola
GENDER ISSUES -
                                in March during Master Class → very successful
MATHEMATICA Mauro
CAD ALTIUM
               Andreas
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The participation to Date with a Boot and a talk by Calliope and the school event "Le Ragazze e la scienza" is described.

We have decided to have the GA-EB, the FTK workshop (open to external researchers) and the training all at CERN (Geneva), collecting all the events in the same week In July.

Open Days will be done like in 2015, at Pisa, LPNHE and AUTH.

The school has been decided to be the recent event "Le ragazze e la Scienza" held in Pisa with FPGA lessons and laboratory with evaluation boards.

Mermikli, Sakellariou, Kimura and Greco reported about their activities during secondments (Mermikli and Sakellariou) and recruitments (Kimura and Greco). Please see their slides for details.