

Proposal Evaluation Form



EUROPEAN COMMISSION

7 th Framework Programme for Research

EVALUATION SUMMARY REPORT

Call : FP7-PEOPLE-2013-IIF
Funding scheme : MC-IIF (International Incoming Fellowships (IIF))
Proposal number : 622202
Proposal acronym : RTTFUNPSAL
Duration (months) : 24
Proposal title : Real time tracking for ultimate new physics searches at LHC

N.	Proposer name	Country	Type	Total cost (€)	%	Grant req. (€)	%
1	ISTITUTO NAZIONALE DI FISICA NUCLEARE	IT					
Total:							

Abstract :

The goal of this project is the participation to the construction and the test for a high precision real-time tracker built for the ATLAS experiment: the Fast Track (FTK) processor. FTK can improve the capability of the ATLAS detector to select interesting events reach of heavy leptons or quarks within the enormous LHC background. It uses FPGA and ASIC chips to implement, real-time, complex track reconstruction algorithms. The track's trajectories are reconstructed in 3D, in few dozens of microseconds and the quality of the parameters is almost offline. FTK will increase the ATLAS discovery capability and will increase the precision of Higgs properties measurements. In parallel we will pursue challenging R&D & new real time computing ideas for more complex applications.

Marie Curie International Incoming Fellowships (IIF)

SCORING

Scores must be in the range 0-5. Decimal marks may be given.

Interpretation of the score:

0- The proposal fails to address the criterion under examination or cannot be judged due to missing or incomplete information.

1- Poor. The criterion is addressed in an inadequate manner, or there are serious inherent weaknesses.

2- Fair. While the proposal broadly addresses the criterion, there are significant weaknesses.

3- Good. The proposal addresses the criterion well, although improvements would be necessary.

4- Very good. The proposal addresses the criterion very well, although certain improvements are still possible.

5- Excellent. The proposal successfully addresses all relevant aspects of the criterion in question. Any shortcomings are minor.

Criterion 1. S&T QUALITY (award)

Issues to be addressed when assigning an overall mark for this criterion:

- Research/technological quality, including any interdisciplinary and multidisciplinary aspects of the proposal.
- Appropriateness of research methodology and approach.
- Originality and innovative nature of the project, and relationship to the 'state of the art' of research in the field
- Timeliness and relevance of the project
- Host research expertise in the field
- Quality of the group/scientist in charge

Please use the following structure in your comments to this criterion:

- Strengths of the proposal (bullet point structure):
- Weaknesses of the proposal (bullet point structure):
- Overall comments:

(reflecting the relative importance of the strengths and weaknesses above mentioned)

(copy the text above in the comment box)

Strengths of the proposal:

- The project is of very high quality both scientifically and technologically.
- The proposal compares very favourably with the state of the art in the field. Moreover it comes just a few years before LHC will start operating at higher instantaneous luminosities and is therefore very timely.
- The proposal demonstrates interesting interdisciplinary applications of the project.
- The proposal accurately describes the research methodology.
- The host institute is one of the leading high-energy physics laboratories in Europe.
- The scientist in charge and his group have a very good experience in fast tracking devices.

Weaknesses of the proposal:

- The current status of the FTK and of the trigger upgrade is not clearly described and the role of the applicant in the project is not sufficiently discussed.

Overall score (Threshold: 3.00/5.00, Weight: 0.25) **4.60**

Criterion 2. TRANSFER OF KNOWLEDGE (award)

Issues to be addressed when assigning an overall mark for this criterion:

- Clarity and quality of the transfer of knowledge objectives
- Potential of transferring knowledge to European host and/or bringing knowledge to Europe

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Please use the following structure in your comments to this criterion:

- Strengths of the proposal (bullet point structure):
- Weaknesses of the proposal (bullet point structure):
- Overall comments:

(reflecting the relative importance of the strengths and weaknesses above mentioned)

(copy the text above in the comment box)

Strengths of the proposal:

- The proposal describes very clearly the transfer of knowledge objectives.
- The applicant has very good and complementary expertise to the group he would join.
- The proposal describes the very interesting network of scientific and academic activities that would be formed between Italy and Japan.

Weaknesses of the proposal:

- The potential for transferring knowledge has been assessed from the context of the proposal but should have been better and more precisely described.

Overall score **4.30**

Criterion 3. RESEARCHER (award)

Issues to be addressed when assigning an overall mark for this criterion:

- Research experience
- Research results including patents, publications, teaching etc
- Independent thinking, leadership qualities, and capacity to transfer knowledge
- Match between the fellow's profile and project

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- Weaknesses of the proposal (bullet point structure):
- Overall comments:

(reflecting the relative importance of the strengths and weaknesses above mentioned)

(copy the text above in the comment box)

Strengths of the proposal:

- The researcher, still at a relatively early point in his career, has demonstrated very good independence and ingenuity. He has also shown good leadership qualities in forming a new experimental group in Japan.
- The researcher has obtained some important results in the field of top quark physics.
- The applicant has diversified his interests and has both good hardware and data analysis skills and competencies.
- The proposal demonstrates the potential of the applicant to transfer knowledge to the host institute and to Europe in general.

Weaknesses of the proposal:

- The full potential to transfer knowledge may be tempered somewhat by the applicant's limited experience in hardware development.

Overall score (Threshold: 4.00/5.00, Weight: 0.25) **4.50**

Criterion 4. IMPLEMENTATION (selection)

Issues to be addressed when assigning an overall mark for this criterion:

- Quality of infrastructure / facilities and International collaborations of host
- Practical arrangements for the implementation and management of the research project*
- Feasibility and credibility of the project, including work plan
- Practical and administrative arrangements, and support for the hosting of the fellow*

Please use the following structure in your comments to this criterion:

- Strengths of the proposal (bullet point structure):
- Weaknesses of the proposal (bullet point structure):
- Overall comments:

(reflecting the relative importance of the strengths and weaknesses above mentioned)

(copy the text above in the comment box)

Strengths of the proposal:

- The host has very good facilities for the project and has working experience with international researchers.
- All practical and administrative arrangements for the management of the project will be taken care of by the host.

Weaknesses of the proposal:

- The work plan presented lacks a timeline as well as a clear list of deliverables and milestones. As such, it is difficult to assess the feasibility of the project within the duration of the fellowship.

Overall score **3.90**

Criterion 5. IMPACT (award)

Issues to be addressed when assigning an overall mark for this criterion:

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- Potential for creating long term collaborations and mutually beneficial co-operation between Europe and the other third country
- Contribution to European excellence and European competitiveness through valuable transfer of knowledge
- Impact of the proposed outreach activities*

Please use the following structure in your comments to this criterion:

- Strengths of the proposal (bullet point structure):
- Weaknesses of the proposal (bullet point structure):
- Overall comments:

(reflecting the relative importance of the strengths and weaknesses above mentioned)

(copy the text above in the comment box)

Strengths of the proposal:

- *The proposal demonstrates good prospects for further developing a long-term scientific collaboration between Europe (Italy) and Japan.*
- *The proposal has the potential to contribute to European excellence in the field. The applicant will be able to transfer significant knowledge to the host group.*
- *The project has interesting interdisciplinary connections.*

Overall score (Threshold: 3.50/5.00, Weight: 0.20) **4.60**

***Sub-criteria to be evaluated in the light of the principles of the 'European Charter for Researchers' and the 'Code of Conduct for the Recruitment of Researchers'.**

RECOMMENDATIONS FOR NEGOTIATION AND/OR INDICATORS TO MONITOR PROGRESS OF PROJECT:

TOTAL SCORE

Total score (Threshold: 70.00/100.00, Weight: 1.00) **88.50**

Please answer both questions, even if the first answer is 'No'

Does this proposal raise ethical issues?

No

Other Issues

Does the applicant request a return phase in an ICPC (including work plan)?

No