

# Abstract Review

Gabriel Luciano Gomes - RA: 265673  
Paulo Junio Reis Rodrigues - RA: 265674

November 19, 2020

## 1 Reviewing the Abstract

For this review, we chose the file al20, which is described below:

- Three approaches are studied to incorporate agent intelligence with high-performance computing systems; the first at the task level, the second at the core level and the third both at the task and core level.
- This places a cost on the maintenance of computing tasks.
- This paper describes an experimental investigation into multi-agent approaches to bring in this intelligence to high-performance computing systems.
- The key result is that a task can be relocated without manual intervention and with a time delay in the order of milliseconds.
- Intelligent approaches which can pro-actively detect computing core failures and take action to relocate the computing core's task onto reliable cores can make a significant step towards automating fault tolerance in high-performance computing systems.
- This places a cost on the maintenance of computing tasks.
- The approaches are investigated for single core failure scenarios that can occur in the execution of parallel reduction algorithms on computer clusters.

After the analysis and reorganization, the following text was obtained:

“Intelligent approaches which can pro-actively detect computing core failures and take action to relocate the computing core's task onto reliable cores can make a significant step towards automating fault tolerance in high-performance computing systems. This places a cost on the maintenance of computing tasks. This paper describes an experimental investigation into multi-agent approaches to bring in this intelligence to high-performance computing systems. Three approaches are studied to incorporate agent intelligence with high-performance computing systems; the first at the task level, the second at the core level and the third both at the task and core level. The approaches are investigated for single core failure scenarios that can occur in the execution of parallel reduction algorithms on computer clusters. The key result is that a task can be relocated without manual intervention and with a time delay in the order of milliseconds.”

Finally, a title is required to enhance the impact of the article. However, it needs to fit perfectly to the result abstract and may not be that long. Hence, we got the following one:

**Computing core allocation improvement with intelligent approaches**

### 1.1 Analyzing the writing

This topic is related to the text writing and how could it be improved. Following there are some suggestions and rephrases.

- 1st phrase - Long phrase, missing comas and missplaced words

Intelligent approaches can pro-actively detect computing core failures. Furthermore, it can take action to relocate the computing core's task onto realiable cores, making a significant step towards automating fault tolerance in high-performance computing systems.

- 2nd phrase - OK. Nothing to be changed
- 3rd phrase - Rephrasing

This paper describes an experimental investigation into multi-agent approaches to get high-performance computing systems.

- 4th phrase - Missing connection words, replacing the use of "the"

Thus, three approches are studies to incorpate agent intelligence with high-performance computing systems; first at the task level, followed by the core level and then both at the task and core level.

- 5th phrase - Replacing "the" for "theses"

These approaches are investigated for single core failure scenarios that can occur in the execution of parallel reduction algorithms on computer clusters.

- 6h phrase - Missing connection words

Hence, the key result is that a task can be relocated without manual intervention and with a time delay in the order of milliseconds.

## 1.2 Reviewed Text

Computing core allocation improvement with intelligent approaches

"Intelligent approaches can pro-actively detect computing core failures. Furthermore, it can take action to relocate the computing core's task onto realiable cores, making a significant step towards automating fault tolerance in high-performance computing systems. This places a cost on the maintenance of computing tasks. This paper describes an experimental investigation into multi-agent approaches to bring in this intelligence to high-performance computing systems. Thus, three approches are studies to incorpate agent intelligence with high-performance computing systems; first at the task level, followed by the core level and then both at the task and core level. These approaches are investigated for single core failure scenarios that can occur in the execution of parallel reduction algorithms on computer clusters. Hence, the key result is that a task can be relocated without manual intervention and with a time delay in the order of milliseconds."