Cover Letter
January 26, 2016

Dear Dr. Canfora

Please find attached an extended revision of the paper "A Bug Reproduction Approach Based on Directed Model Checking and Crash Traces," by Mathieu Nayrolles, Abdelwahab Hamou-Lhadj, Sofiène Tahar, and Alf Larsson.

We are grateful for all the constructive comments from the Reviewers.

We have addressed all the comments. Also, many of the reviewers' suggestions have been incorporated into this revised version of the paper.

We have made significant changes to many sections of the paper to improve the formal aspect of the paper, a concern raised by both reviewers. All the equations have been changed to comply with standard practices in the field. We have also made significant changes to the paper to clarify how the approach works. We added background information on slicing, Java crash traces, crash trace frames as requested by Reviewer 1. We have added several new figures and examples.

In addition, we have made important improvements to the paper to discuss the counter-examples, the optimality of the approach, and its limitations as requested by Reviewer 2. Furthermore, we discussed how our approach compares to existing solutions (Reviewer 2). We added a paragraph on directed model checking using original citations as suggested by the same reviewer.

Finally, we want to note that we improved many other parts of the paper including the related work section, the conclusion, and the references.

We enclose with this letter the following documents:
- A Reply_To_Comments document with the reviewers comments addressed
- A revised version of the paper highlighting the changes made to the original submission in red
- A clean version of the paper

We look forward to hearing from you.

Best regards,

Abdelwahab Hamou-Lhadj, PhD, ing.
Associate Professor, Undergraduate Program Director
Software Behaviour Analysis (SBA) Research Lab
Electrical and Computer Engineering
Concordia University
1455 de Maisonneuve West
Montreal, Quebec H3G 1M8 Canada
Office: S-EV5.213
Tel: +1.514.848.2424 ext. 7949
Email: abdelw@ece.concordia.ca