



<b>Title</b>	<b>Message from the IWPD 2014 workshop organizers</b>
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## Message from the IWPD 2014 Workshop Organizers

Welcome to the Fifth IEEE International Workshop on Program Debugging (IWPD), which is being held in conjunction with ISSRE 2014 (the 25th IEEE International Symposium on Software Reliability Engineering) in Naples, Italy.

As software today is larger and more complex than ever before, it is not surprising that the debugging process is also much more difficult and costly. Yet, this presents golden opportunities for researchers to produce significant impacts on solving real-world problems. While manual debugging is quickly becoming impractical, techniques that claim to effectively locate a fault have not matured to the desired level of accuracy, consistency, and usability. Among the obstacles that developers face during the debugging process are the ambiguity of distinguishing executions in the presence of multiple causative faults, the difficulty in reliably recording and replaying failed executions, and the uncertainty that bug fixes might introduce more faults into the software. Furthermore, many existing approaches suffer from critical shortcomings that limit their applicability, such as the complexity and lack of scalability of formal verification, the imprecision of static analysis, the high performance cost of dynamic techniques, non-productive human-centric debugging environments, and the high setup and operating costs. Studies are underway to resolve these problems, but researchers often rely on simplified assumptions or model their solutions after methods to handle selected subject programs that do not accurately reflect the complexity in large-scale industrial software and its development process. Practitioners question whether such research proposals can add much value to their work.

The goal of IWPD is to highlight the most pressing challenges and innovative solutions associated with program debugging. It will bring together participants from both academia and industry to discuss the latest advancements and determine further challenges that must be overcome in the area of program debugging.

This year we received 14 submissions. Each paper was carefully reviewed by at least three PC members. Seven have been accepted for presentation at the workshop. We also have a panel on *Program Debugging – Research and Practice*, focusing on how to apply research results to help practitioners debug their software more effectively and efficiently.

We would like to thank all members of the program committee for their hard work.. We also thank the authors for sharing their research and experiences with us. We thank everyone for attending the workshop. We hope you enjoy the program and look forward to your continuous support.

### **Program Committee Co-chairs**

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