

TEST EQUIVALENCE ANALYSIS FOR AUTOMATIC PATCH GENERATION

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DISCUSSION QUESTIONS



- 1 How might the test-equivalence relations proposed in this paper be adapted or extended to handle more complex program transformations beyond those considered in the study?

2 The paper emphasizes the importance of test suite quality for the effectiveness of the proposed approach. How could automated test generation techniques be integrated with this approach to mitigate the risk of overfitting and improve the robustness of generated patches?

3 The paper introduces value-based and dependency-based test-equivalence relations. What are the trade-offs between these two types of relations in terms of computational cost and effectiveness in reducing test executions?

4 How might the concepts of test-equivalence and on-the-fly partitioning of the patch space be applied to other software engineering tasks, such as test case prioritization or fault localization?



THANK YOU

