



Università degli Studi di Salerno  
Dipartimento di Informatica

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Tesi di Laurea di I livello in  
Informatica

# Template tesi ISISLab

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Academic Year 2021-2022

# Abstract

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# Chapter 1

## Introduction

La Figure 1.1 è una figura di esempio.



*Figure 1.1: Questa è una immagine di esempio*

Things to add:

- Types of test coverage

Test case generation can be seen as a multi-objective problem, given that the goal is to cover multiple test targets.

Search-based approaches for test case generation use optimization algorithms to attempt to find the best candidate test case with the objective to maximize fault detection. Genetic Algorithms (GAs) are an example of an evolutionary search approach for test case generation; starting from an initial, often randomly generated, population of test cases, the algorithm keeps evolving the individuals according to simulated natural evolution theory principles. In this context, a typical fitness function of a GA would measure

the distance between the execution trace of the generated test cases and the coverage targets.

## Chapter 2

# Literature

DynaMOSA, Dynamic Many-Objective Sorting Algorithm [1] is Traditionally, with evolutionary search-based approaches, the algorithm is applied multiple times, once for each coverage criterion; doing so may

## Chapter 3

# Conclusions

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# Bibliography

- [1] F. M. Kifetwe A. Panichella and P. Tonella.  
“Automated Test Case Generation as a Many-Objective Optimisation Problem with Dynamic Selection of the Targets”. In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* (2018).
- [2] A. Author. “Article title”. In: *Journal name* (2099).
- [3] A. Author. “Tesi di esempio ISISLab”. 2099.
- [4] A. Author and A. Author. *Book reference example*. Publisher, 2099.
- [5] *Example*. URL: <https://www.isislab.it>.