

Mutation Panel 2015

Yue Jia

Academic

Industrial

C / C++

Java

Java

Milu

Javalanche

Major

PIT

MuJava

Bacterio

What makes a successful tool?



What makes a successful tool?

Full mutation operators

Equivalent mutant detection

Multi-Paradigm

Flexibility

Scalability

Stability

Efficiency

Usability

Test data generation

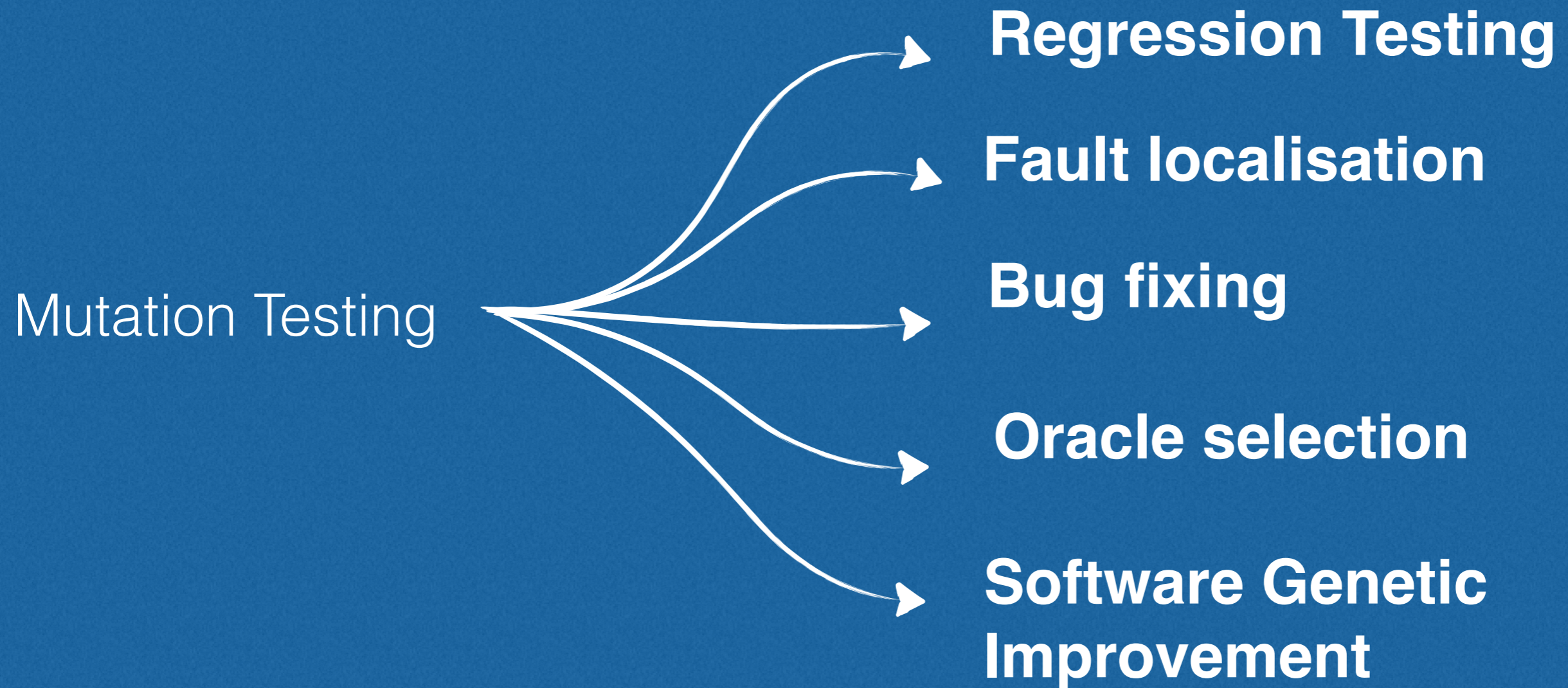
How do we bridge the gap between
research and industry tools?

Scalability

Efficiency

Test data generation

Mutation Tool supporting other Research Topics



How do we measure the effectiveness of the mutation tools?

Number of Mutants?

Equivalent Mutants
Stillborn Mutations
Trivial Mutations
Stubborn Mutations

Mutation Scores?

Type of mutants
Type of mutations
Mutation Tests

Mutation Benchmarks

