BiCAIM

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Chapter 1

Namespace Index

1.1 Package List

Here are the packages with brief descriptions (if available):

Chapter 2

Hierarchical Index

2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

Chapter 3

Class Index

3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Chapter 4

Namespace Documentation

4.1 Package factory_interface

Classes

- interface IFFactoryAcceptCandidate
- interface IFFactoryCandidate
- interface IFFactoryCrossover
- interface IFFactoryDistribution
- interface IFFactoryFatherSelection
- interface IFFactoryGenerator
- interface IFFactoryMutation
- interface IFFactoryReplace
- interface IFFactorySolutionMethod
- interface IFFSampling

4.1.1 Detailed Description

@(#) IFFactoryAcceptCandidate.java

@(#) IFFactoryCandidate.java

4.2 Package factory_method

Classes

- class FactoryAcceptCandidate
- class FactoryCandidate
- class FactoryCrossover
- class FactoryDistribution
- class FactoryFatherSelection
- class FactoryGenerator
- class FactoryLoader
- class FactoryMutation
- class FactoryReplace

- class FactorySampling
- class FactorySolutionMethod
- class **FactoryCandidateTest**
- class **FactoryDistributionTest**
- class **FactoryGeneratorTest**
- class **FactoryLoaderTest**
- class **FactorySamplingTest**
- class **FactorySolutionMethodTest**

4.2.1 Detailed Description

@(#) FactoryAcceptCandidate.java

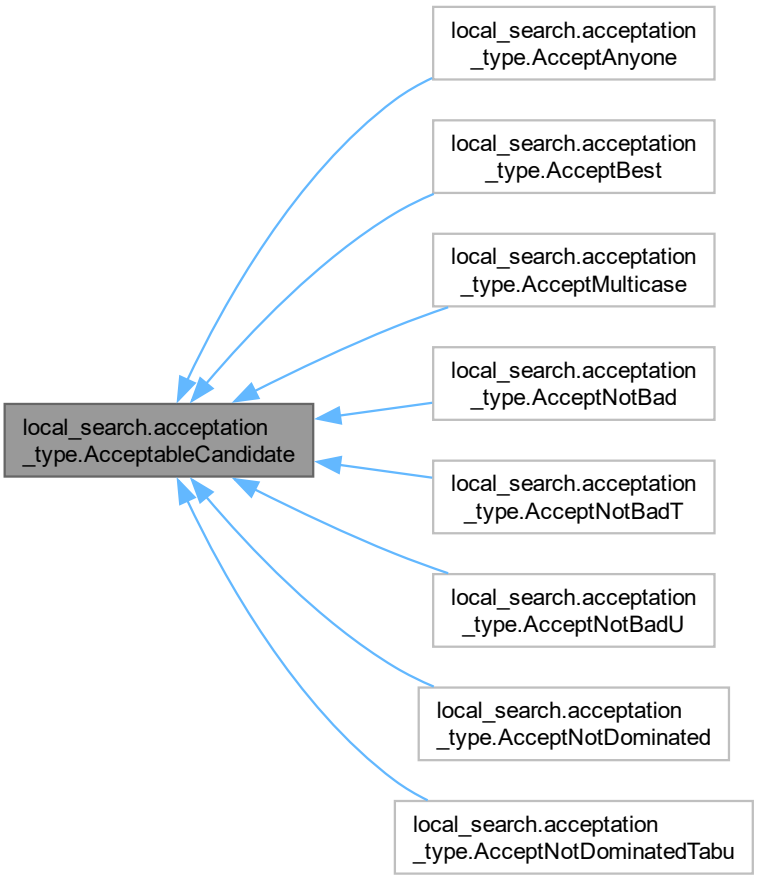
@(#) FactoryCandidate.java

Chapter 5

Class Documentation

5.1 local_search.acceptation_type.AcceptableCandidate Interface Reference

Inheritance diagram for local_search.acceptation_type.AcceptableCandidate:



Public Member Functions

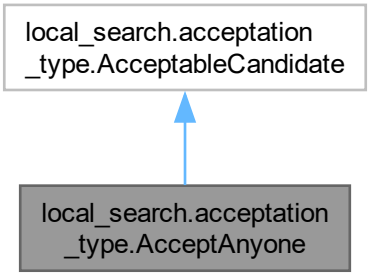
- Boolean **acceptCandidate** (State stateCurrent, State stateCandidate)

The documentation for this interface was generated from the following file:

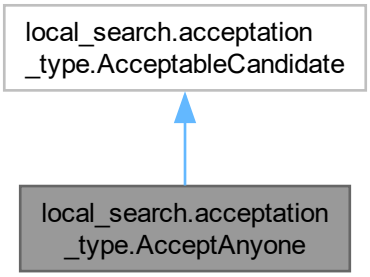
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/acceptation_type/AcceptableCandidate.java

5.2 local_search.acceptation_type.AcceptAnyone Class Reference

Inheritance diagram for local_search.acceptation_type.AcceptAnyone:



Collaboration diagram for local_search.acceptation_type.AcceptAnyone:



Public Member Functions

- Boolean acceptCandidate (State stateCurrent, State stateCandidate)

5.2.1 Member Function Documentation

5.2.1.1 acceptCandidate()

```
Boolean local_search.acceptation_type.AcceptAnyone.acceptCandidate (
            State stateCurrent,
            State stateCandidate)
```

Implements local_search.acceptation_type.AcceptableCandidate.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/acceptation_type/AcceptAnyone.java

5.3 local_search.acceptation_type.AcceptationTypeTest Class Reference

Public Member Functions

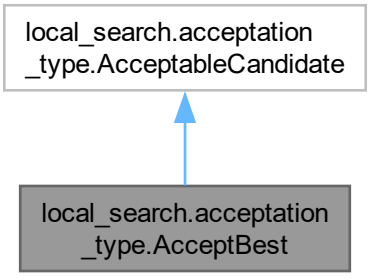
- void **setUp** ()
- void **testAcceptAnyone** ()
- void **testAcceptBestMaximization** () throws Exception
- void **testAcceptBestMinimization** () throws Exception
- void **testAcceptNotBadMaximization** () throws Exception
- void **testAcceptNotDominated** ()
- void **testAcceptNotBadT** ()
- void **testAcceptNotBadU** ()
- void **testAcceptMulticase** ()

The documentation for this class was generated from the following file:

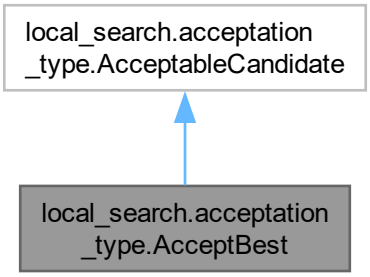
- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/local_search/acceptation_type/AcceptationTypeTest.java

5.4 local_search.acceptation_type.AcceptBest Class Reference

Inheritance diagram for local_search.acceptation_type.AcceptBest:



Collaboration diagram for local_search.acceptation_type.AcceptBest:



Public Member Functions

- Boolean acceptCandidate (State stateCurrent, State stateCandidate)

5.4.1 Member Function Documentation

5.4.1.1 acceptCandidate()

```
Boolean local_search.acceptation_type.AcceptBest.acceptCandidate (
            State stateCurrent,
            State stateCandidate)
```

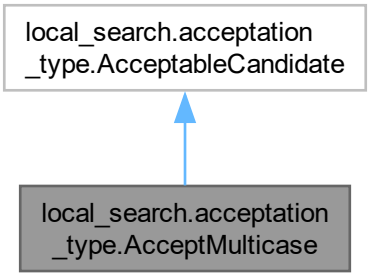
Implements local_search.acceptation_type.AcceptableCandidate.

The documentation for this class was generated from the following file:

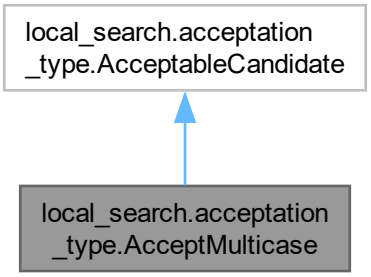
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/acceptation_type/AcceptBest.java

5.5 local_search.acceptation_type.AcceptMulticase Class Reference

Inheritance diagram for local_search.acceptation_type.AcceptMulticase:



Collaboration diagram for local_search.acceptation_type.AcceptMulticase:



Public Member Functions

- Boolean acceptCandidate (State stateCurrent, State stateCandidate)

5.5.1 Member Function Documentation

5.5.1.1 acceptCandidate()

```
Boolean local_search.acceptation_type.AcceptMulticase.acceptCandidate (
            State stateCurrent,
            State stateCandidate)
```

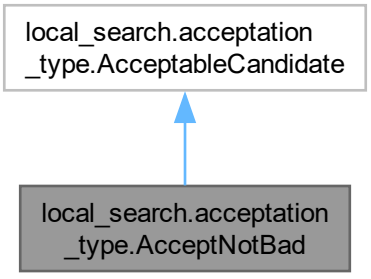
Implements local_search.acceptation_type.AcceptableCandidate.

The documentation for this class was generated from the following file:

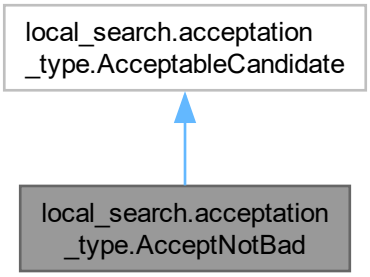
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/acceptation_type/AcceptMulticase.java

5.6 local_search.acceptation_type.AcceptNotBad Class Reference

Inheritance diagram for local_search.acceptation_type.AcceptNotBad:



Collaboration diagram for local_search.acceptation_type.AcceptNotBad:



Public Member Functions

- Boolean acceptCandidate (State stateCurrent, State stateCandidate)

5.6.1 Member Function Documentation

5.6.1.1 acceptCandidate()

```
Boolean local_search.acceptation_type.AcceptNotBad.acceptCandidate (
            State stateCurrent,
            State stateCandidate)
```

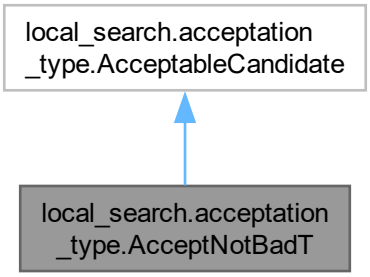
Implements local_search.acceptation_type.AcceptableCandidate.

The documentation for this class was generated from the following file:

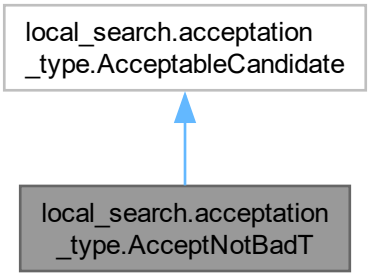
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/acceptation_type/AcceptNotBad.java

5.7 local_search.acceptation_type.AcceptNotBadT Class Reference

Inheritance diagram for local_search.acceptation_type.AcceptNotBadT:



Collaboration diagram for local_search.acceptation_type.AcceptNotBadT:



Public Member Functions

- Boolean acceptCandidate (State stateCurrent, State stateCandidate)

5.7.1 Member Function Documentation

5.7.1.1 acceptCandidate()

```
Boolean local_search.acceptation_type.AcceptNotBadT.acceptCandidate (
            State stateCurrent,
            State stateCandidate)
```

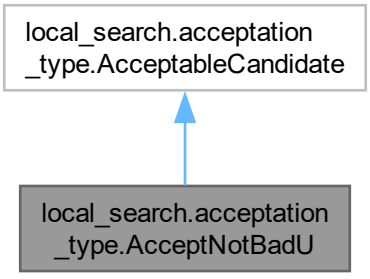
Implements local_search.acceptation_type.AcceptableCandidate.

The documentation for this class was generated from the following file:

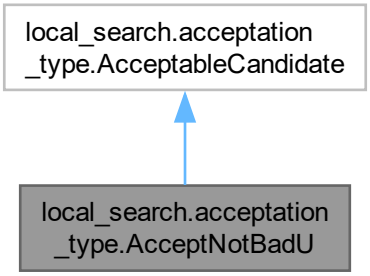
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/acceptation_type/AcceptNotBadT.java

5.8 local_search.acceptation_type.AcceptNotBadU Class Reference

Inheritance diagram for local_search.acceptation_type.AcceptNotBadU:



Collaboration diagram for local_search.acceptation_type.AcceptNotBadU:



Public Member Functions

- Boolean acceptCandidate (State stateCurrent, State stateCandidate)

5.8.1 Member Function Documentation

5.8.1.1 acceptCandidate()

```
Boolean local_search.acceptation_type.AcceptNotBadU.acceptCandidate (
            State stateCurrent,
            State stateCandidate)
```

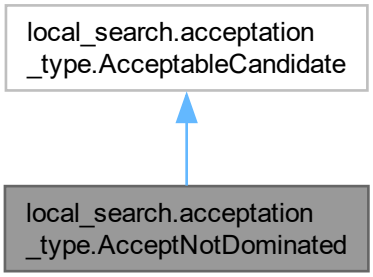
Implements local_search.acceptation_type.AcceptableCandidate.

The documentation for this class was generated from the following file:

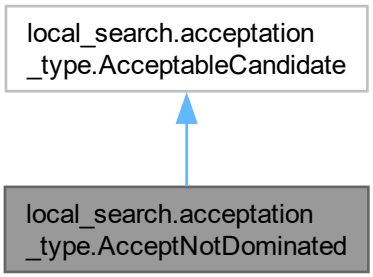
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/acceptation_type/AcceptNotBadU.java

5.9 local_search.acceptation_type.AcceptNotDominated Class Reference

Inheritance diagram for local_search.acceptation_type.AcceptNotDominated:



Collaboration diagram for local_search.acceptation_type.AcceptNotDominated:



Public Member Functions

- Boolean acceptCandidate (State stateCurrent, State stateCandidate)

5.9.1 Member Function Documentation

5.9.1.1 acceptCandidate()

```
Boolean local_search.acceptation_type.AcceptNotDominated.acceptCandidate (
            State stateCurrent,
            State stateCandidate)
```

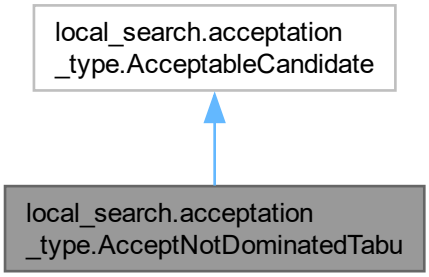
Implements local_search.acceptation_type.AcceptableCandidate.

The documentation for this class was generated from the following file:

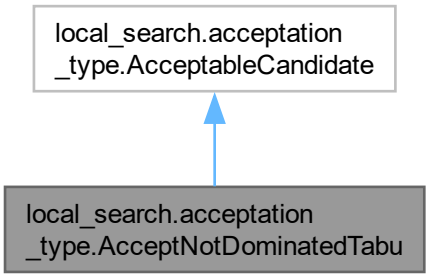
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/acceptation_type/AcceptNotDominated.java

5.10 local_search.acceptation_type.AcceptNotDominatedTabu Class Reference

Inheritance diagram for local_search.acceptation_type.AcceptNotDominatedTabu:



Collaboration diagram for local_search.acceptation_type.AcceptNotDominatedTabu:



Public Member Functions

- Boolean acceptCandidate (State stateCurrent, State stateCandidate)

5.10.1 Member Function Documentation

5.10.1.1 acceptCandidate()

```
Boolean local_search.acceptation_type.AcceptNotDominatedTabu.acceptCandidate (
            State stateCurrent,
            State stateCandidate)
```

Implements local_search.acceptation_type.AcceptableCandidate.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/acceptation_type/AcceptNotDominatedTabu.java

5.11 local_search.acceptation_type.AcceptType Enum Reference

Public Attributes

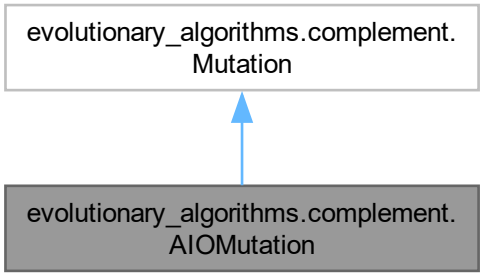
- **AcceptAnyone**
- **AcceptBest**
- **AcceptNotBad**
- **AcceptNotBadT**
- **AcceptNotBadU**
- **AcceptMulticase**
- **AcceptNotDominated**
- **AcceptNotDominatedTabu**

The documentation for this enum was generated from the following file:

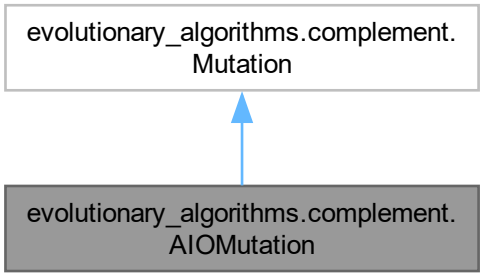
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/acceptation_type/AcceptType.java

5.12 evolutionary_algorithms.complement.AIOMutation Class Reference

Inheritance diagram for evolutionary_algorithms.complement.AIOMutation:



Collaboration diagram for evolutionary_algorithms.complement.AIOMutation:



Public Member Functions

- State mutation (State state, double PM)
- void **sortedPathValue** (State state)

Static Public Member Functions

- static void **fillPath** ()

Static Public Attributes

- static ArrayList< Object > **path** = new ArrayList<Object>()

5.12.1 Member Function Documentation

5.12.1.1 mutation()

```
State evolutionary_algorithms.complement.AIOMutation.mutation (
            State state,
            double PM)
```

Reimplemented from evolutionary_algorithms.complement.Mutation.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/AIOMutation.java

5.13 local_search.candidate_type.CandidateType Enum Reference

Public Attributes

- **RandomCandidate**
- **GreaterCandidate**
- **SmallerCandidate**
- **NotDominatedCandidate**

The documentation for this enum was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/candidate_type/CandidateType.java

5.14 local_search.candidate_type.CandidateTypeTest Class Reference

Public Member Functions

- void **setUp** ()
- void **testRandomCandidate** () throws Exception
- void **testGreaterCandidate** () throws Exception
- void **testSmallerCandidate** () throws Exception
- void **testNotDominatedCandidate** () throws Exception

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/local_search/candidate_type/CandidateTypeTest.java

5.15 local_search.candidate_type.CandidateValue Class Reference

Public Member Functions

- State **stateCandidate** (State stateReference, CandidateType type, StrategyType strategy, Integer operator-number, List< State > neighborhood)

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/candidate_type/CandidateValue.java

5.16 problem.definition.Codification Class Reference

Public Member Functions

- abstract boolean **validState** (State state)
- abstract Object **getVariableAleatoryValue** (int key)
- abstract int **getAleatoryKey** ()
- abstract int **getVariableCount** ()

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/problem/definition/Codification.java

5.17 problem.definition.CodificationTest Class Reference

Public Member Functions

- void **testAbstractImplementation** ()

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/problem/definition/CodificationTest.java

5.18 local_search.complement.ComplementTest Class Reference

Public Member Functions

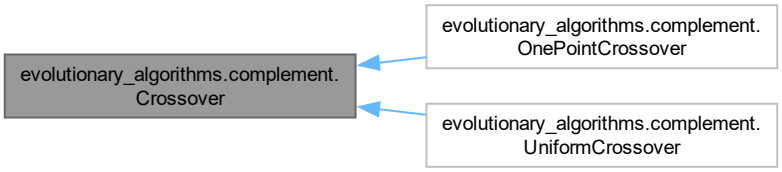
- void **setUp** ()
- void **testUpdateParameter** ()
- void **testTabuSolutions** () throws Exception

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/local_search/complement/ComplementTest.java

5.19 evolutionary_algorithms.complement.Crossover Class Reference

Inheritance diagram for evolutionary_algorithms.complement.Crossover:



Public Member Functions

- abstract State **crossover** (State father1, State father2, double PC)

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/Crossover.java

5.20 evolutionary_algorithms.complement.CrossoverType Enum Reference

Public Attributes

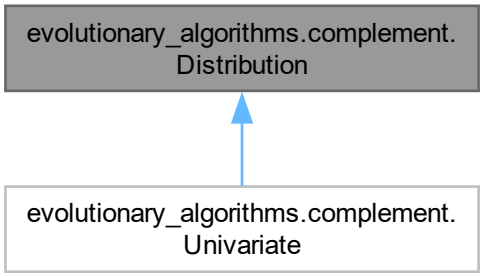
- **OnePointCrossover**
- **UniformCrossover**

The documentation for this enum was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/CrossoverType.java

5.21 evolutionary_algorithms.complement.Distribution Class Reference

Inheritance diagram for evolutionary_algorithms.complement.Distribution:



Public Member Functions

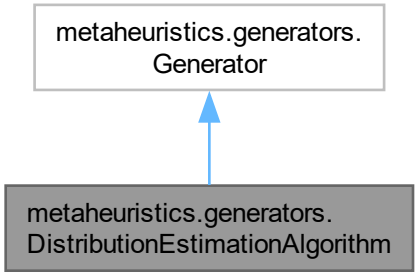
- abstract List< Probability > **distribution** (List< State > fathers)

The documentation for this class was generated from the following file:

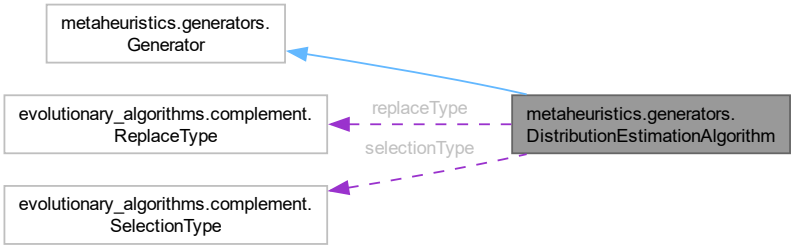
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/Distribution.java

5.22 metaheuristics.generators.DistributionEstimationAlgorithm Class Reference

Inheritance diagram for metaheuristics.generators.DistributionEstimationAlgorithm:



Collaboration diagram for metaheuristics.generators.DistributionEstimationAlgorithm:



Public Member Functions

- State **MaxValue** (List< State > listInd)
- State generate (Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩ NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException
- State getReference ()
- List< State > getReferenceList ()
- GeneratorType getType ()
- void setInitialReference (State stateInitialRef)
- void updateReference (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- List< State > **getListStateRef** ()
- List< State > **getListReference** ()
- void **setListReference** (List< State > listReference)
- GeneratorType **getGeneratorType** ()
- void **setGeneratorType** (GeneratorType generatorType)
- List< State > **getfathersList** () throws IllegalArgumentException, SecurityException, ClassNotFound↩ Exception, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethod↩ Exception
- List< State > getSonList ()
- boolean awardUpdateREF (State stateCandidate)
- float getWeight ()
- void setWeight (float weight)
- DistributionType **getDistributionType** ()
- void **setDistributionType** (DistributionType distributionType)
- int[ ] getListCountBetterGender ()
- int[ ] getListCountGender ()
- float[ ] getTrace ()

Static Public Attributes

- static List< State > **sonList** = new ArrayList<State>()
- static ReplaceType **replaceType**
- static SelectionType **selectionType**
- static int **truncation**
- static int **countRef** = 0
- static int **countGender** = 0
- static int **countBetterGender** = 0

Additional Inherited Members

Public Attributes inherited from metaheuristics.generators.Generator

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

5.22.1 Member Function Documentation

5.22.1.1 awardUpdateREF()

```
boolean metaheuristics.generators.DistributionEstimationAlgorithm.awardUpdateREF (
            State stateCandidate)
```

Reimplemented from metaheuristics.generators.Generator.

5.22.1.2 generate()

```
State metaheuristics.generators.DistributionEstimationAlgorithm.generate (
            Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩
NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException,
NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

5.22.1.3 getListCountBetterGender()

```
int[] metaheuristics.generators.DistributionEstimationAlgorithm.getListCountBetterGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.22.1.4 getListCountGender()

```
int[] metaheuristics.generators.DistributionEstimationAlgorithm.getListCountGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.22.1.5 getReference()

```
State metaheuristics.generators.DistributionEstimationAlgorithm.getReference ()
```

Reimplemented from metaheuristics.generators.Generator.

5.22.1.6 getReferenceList()

```
List< State > metaheuristics.generators.DistributionEstimationAlgorithm.getReferenceList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.22.1.7 getSonList()

```
List< State > metaheuristics.generators.DistributionEstimationAlgorithm.getSonList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.22.1.8 getTrace()

```
float[] metaheuristics.generators.DistributionEstimationAlgorithm.getTrace ()
```

Reimplemented from metaheuristics.generators.Generator.

5.22.1.9 getType()

```
GeneratorType metaheuristics.generators.DistributionEstimationAlgorithm.getType ()
```

Reimplemented from metaheuristics.generators.Generator.

5.22.1.10 getWeight()

```
float metaheuristics.generators.DistributionEstimationAlgorithm.getWeight ()
```

Reimplemented from metaheuristics.generators.Generator.

5.22.1.11 setInitialReference()

```
void metaheuristics.generators.DistributionEstimationAlgorithm.setInitialReference (
            State stateInitialRef)
```

Reimplemented from metaheuristics.generators.Generator.

5.22.1.12 setWeight()

```
void metaheuristics.generators.DistributionEstimationAlgorithm.setWeight (
            float weight)
```

Reimplemented from metaheuristics.generators.Generator.

5.22.1.13 updateReference()

```
void metaheuristics.generators.DistributionEstimationAlgorithm.updateReference (
            State stateCandidate,
            Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/DistributionEstimationAlgorithm.java

5.23 metaheuristics.generators.DistributionEstimationAlgorithmTest Class Reference

Public Member Functions

- void **setUp** () throws Exception
- void **tearDown** () throws Exception
- void **testGenerate** () throws Exception
- void **testUpdateReference** () throws Exception
- void **testGetReference** ()
- void **testGetType** ()
- void **testMaxValue** ()
- void **testGetListStateRef_Empty** ()
- void **testAwardUpdateREF** ()
- void **testGettersAndSetters** ()
- void **testGetListReference** ()

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/DistributionEstimationAlgorithmTest.↩ java

5.24 evolutionary_algorithms.complement.DistributionType Enum Reference

Public Attributes

- **Univariate**

The documentation for this enum was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/DistributionType.java

5.25 local_search.acceptation_type.Dominance Class Reference

Public Member Functions

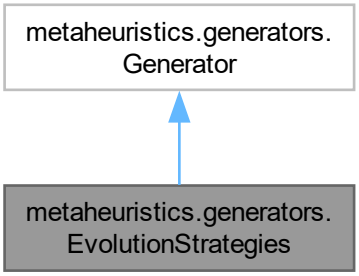
- boolean **dominance** (State solutionX, State solutionY)
- boolean **ListDominance** (State stateCandidate, List< State > listRefPoblacFinal)

The documentation for this class was generated from the following file:

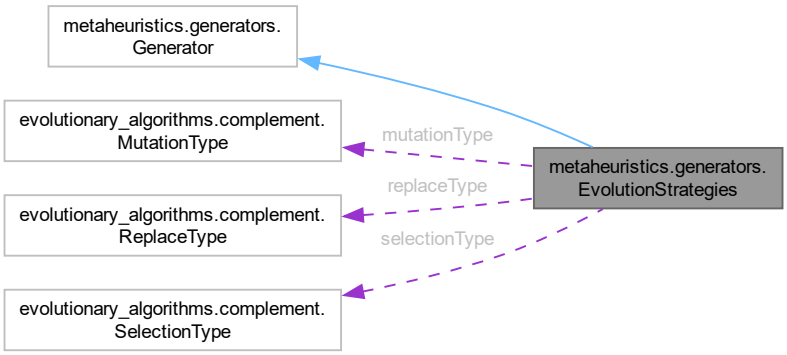
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/acceptation_type/Dominance.java

5.26 metaheuristics.generators.EvolutionStrategies Class Reference

Inheritance diagram for metaheuristics.generators.EvolutionStrategies:



Collaboration diagram for metaheuristics.generators.EvolutionStrategies:



Public Member Functions

- State generate (Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩ NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException
- State getReference ()
- void **setStateRef** (State stateRef)
- GeneratorType getType ()
- void setInitialReference (State stateInitialRef)
- void updateReference (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- List< State > **getListStateRef** ()
- List< State > **getListStateReference** ()
- void **setListStateReference** (List< State > listStateReference)
- GeneratorType **getTypeGenerator** ()
- void **setTypeGenerator** (GeneratorType generatorType)
- List< State > getReferenceList ()
- List< State > getSonList ()
- boolean awardUpdateREF (State stateCandidate)
- float getWeight ()
- void setWeight (float weight)
- int[ ] getListCountBetterGender ()
- int[ ] getListCountGender ()
- float[ ] getTrace ()

Static Public Attributes

- static double **PM**
- static MutationType **mutationType**
- static ReplaceType **replaceType**
- static SelectionType **selectionType**
- static int **countRef** = 0
- static int **truncation**
- static int **countGender** = 0
- static int **countBetterGender** = 0

Additional Inherited Members

Public Attributes inherited from metaheuristics.generators.Generator

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

5.26.1 Member Function Documentation

5.26.1.1 awardUpdateREF()

```
boolean metaheuristics.generators.EvolutionStrategies.awardUpdateREF (
            State stateCandidate)
```

Reimplemented from metaheuristics.generators.Generator.

5.26.1.2 generate()

```
State metaheuristics.generators.EvolutionStrategies.generate (
            Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩
NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException,
NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

5.26.1.3 getListCountBetterGender()

```
int[] metaheuristics.generators.EvolutionStrategies.getListCountBetterGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.26.1.4 getListCountGender()

```
int[] metaheuristics.generators.EvolutionStrategies.getListCountGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.26.1.5 getReference()

```
State metaheuristics.generators.EvolutionStrategies.getReference ()
```

Reimplemented from metaheuristics.generators.Generator.

5.26.1.6 getReferenceList()

```
List< State > metaheuristics.generators.EvolutionStrategies.getReferenceList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.26.1.7 getSonList()

```
List< State > metaheuristics.generators.EvolutionStrategies.getSonList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.26.1.8 getTrace()

```
float[] metaheuristics.generators.EvolutionStrategies.getTrace ()
```

Reimplemented from metaheuristics.generators.Generator.

5.26.1.9 getType()

```
GeneratorType metaheuristics.generators.EvolutionStrategies.getType ()
```

Reimplemented from metaheuristics.generators.Generator.

5.26.1.10 getWeight()

```
float metaheuristics.generators.EvolutionStrategies.getWeight ()
```

Reimplemented from metaheuristics.generators.Generator.

5.26.1.11 setInitialReference()

```
void metaheuristics.generators.EvolutionStrategies.setInitialReference (
            State stateInitialRef)
```

Reimplemented from metaheuristics.generators.Generator.

5.26.1.12 setWeight()

```
void metaheuristics.generators.EvolutionStrategies.setWeight (
            float weight)
```

Reimplemented from metaheuristics.generators.Generator.

5.26.1.13 updateReference()

```
void metaheuristics.generators.EvolutionStrategies.updateReference (
            State stateCandidate,
            Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/EvolutionStrategies.java

5.27 metaheuristics.generators.EvolutionStrategiesTest Class Reference

Public Member Functions

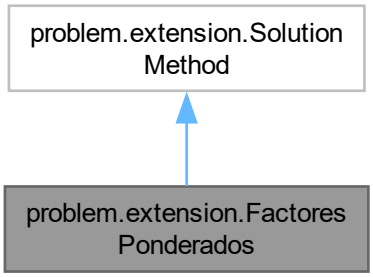
- void **setUp** () throws Exception
- void **tearDown** () throws Exception
- void **testGenerate** () throws Exception
- void **testGetType** ()
- void **testGetReference** () throws Exception
- void **testUpdateReference** () throws Exception
- void **testGetListStateRef_FromRandomSearch** ()
- void **testGetListStateRef_FromOtherGenerator** ()
- void **testGetSetters** ()
- void **testGetReferenceList** ()
- void **testGetListStateReference** ()

The documentation for this class was generated from the following file:

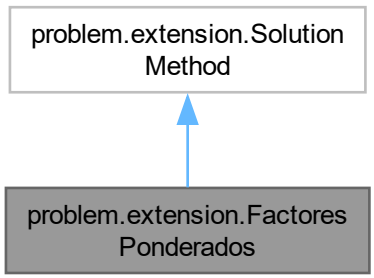
- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/EvolutionStrategiesTest.java

5.28 problem.extension.FactoresPonderados Class Reference

Inheritance diagram for problem.extension.FactoresPonderados:



Collaboration diagram for problem.extension.FactoresPonderados:



Public Member Functions

- void evaluationState (State state)

5.28.1 Member Function Documentation

5.28.1.1 evaluationState()

```
void problem.extension.FactoresPonderados.evaluationState (
            State state)
```

Reimplemented from problem.extension.SolutionMethod.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/problem/extension/FactoresPonderados.java

5.29 problem.extension.FactoresPonderadosTest Class Reference

Public Member Functions

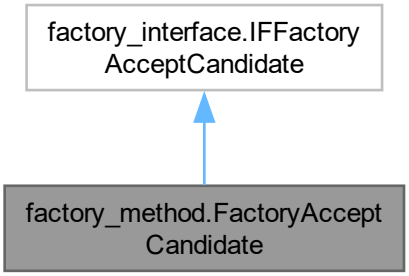
- void **setUp** ()
- void **testEvaluationStateMaximizarMaximizar** ()
- void **testEvaluationStateMaximizarMinimizar** ()
- void **testEvaluationStateMinimizarMaximizar** ()
- void **testEvaluationStateMinimizarMinimizar** ()

The documentation for this class was generated from the following file:

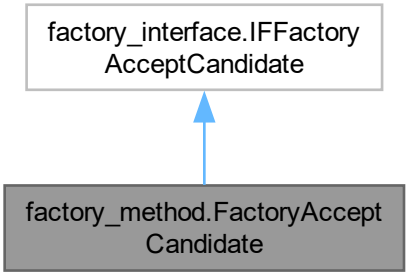
- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/problem/extension/FactoresPonderadosTest.java

5.30 factory_method.FactoryAcceptCandidate Class Reference

Inheritance diagram for factory_method.FactoryAcceptCandidate:



Collaboration diagram for factory_method.FactoryAcceptCandidate:



Public Member Functions

- AcceptableCandidate createAcceptCandidate (AcceptType typeacceptation) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException

5.30.1 Member Function Documentation

5.30.1.1 createAcceptCandidate()

```
AcceptableCandidate factory_method.FactoryAcceptCandidate.createAcceptCandidate (
            AcceptType typeacceptation) throws IllegalArgumentException, SecurityException,
```

`ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩ Exception, NoSuchMethodException`

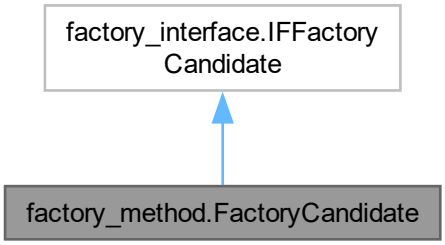
Implements factory_interface.IFFactoryAcceptCandidate.

The documentation for this class was generated from the following file:

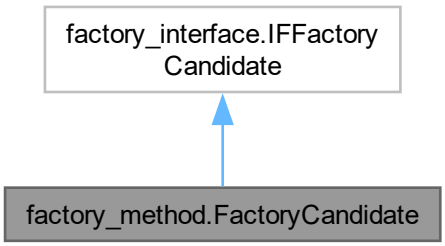
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_method/FactoryAcceptCandidate.java

5.31 factory_method.FactoryCandidate Class Reference

Inheritance diagram for factory_method.FactoryCandidate:



Collaboration diagram for factory_method.FactoryCandidate:



Public Member Functions

- SearchCandidate createSearchCandidate (CandidateType typeCandidate) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, Invocation↩ TargetException, NoSuchMethodException

5.31.1 Member Function Documentation

5.31.1.1 createSearchCandidate()

```
SearchCandidate factory_method.FactoryCandidate.createSearchCandidate (
            CandidateType typeCandidate) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

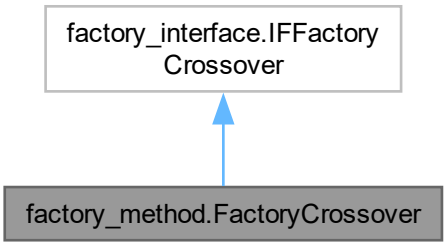
Implements factory_interface.IFFactoryCandidate.

The documentation for this class was generated from the following file:

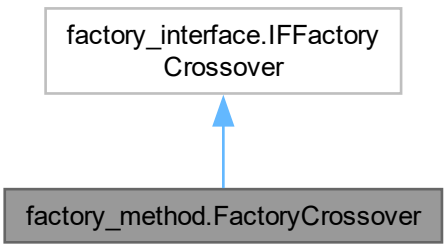
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_method/FactoryCandidate.java

5.32 factory_method.FactoryCrossover Class Reference

Inheritance diagram for factory_method.FactoryCrossover:



Collaboration diagram for factory_method.FactoryCrossover:



Public Member Functions

- Crossover createCrossover (CrossoverType Crossovertype) throws IllegalArgumentException, Security↩ Exception, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩ Exception, NoSuchMethodException

5.32.1 Member Function Documentation

5.32.1.1 createCrossover()

```
Crossover factory_method.FactoryCrossover.createCrossover (
            CrossoverType Crossovertype) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

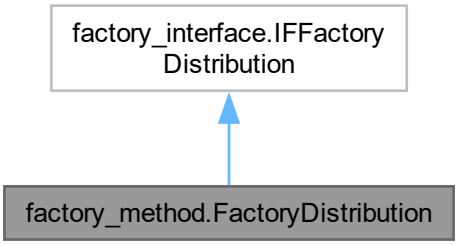
Implements factory_interface.IFFactoryCrossover.

The documentation for this class was generated from the following file:

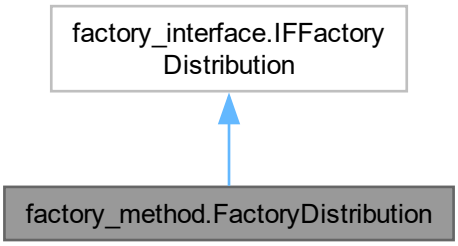
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_method/FactoryCrossover.java

5.33 factory_method.FactoryDistribution Class Reference

Inheritance diagram for factory_method.FactoryDistribution:



Collaboration diagram for factory_method.FactoryDistribution:



Public Member Functions

- Distribution createDistribution (DistributionType distributiontype) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException

5.33.1 Member Function Documentation

5.33.1.1 createDistribution()

```
Distribution factory_method.FactoryDistribution.createDistribution (
            DistributionType distributiontype) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
```

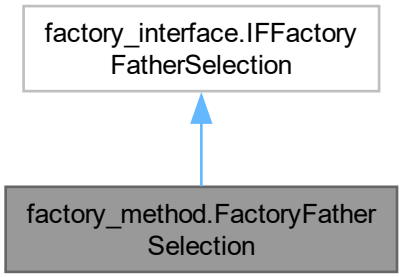
Implements factory_interface.IFFactoryDistribution.

The documentation for this class was generated from the following file:

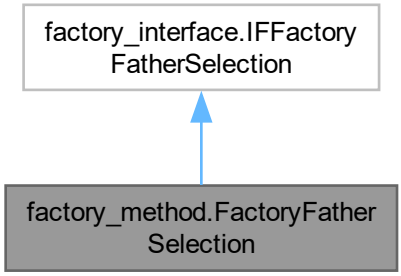
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_method/FactoryDistribution.java

5.34 factory_method.FactoryFatherSelection Class Reference

Inheritance diagram for factory_method.FactoryFatherSelection:



Collaboration diagram for factory_method.FactoryFatherSelection:



Public Member Functions

- FatherSelection createSelectFather (SelectionType selectionType) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, Invocation↩ TargetException, NoSuchMethodException

5.34.1 Member Function Documentation

5.34.1.1 createSelectFather()

```
FatherSelection factory_method.FactoryFatherSelection.createSelectFather (
            SelectionType selectionType) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

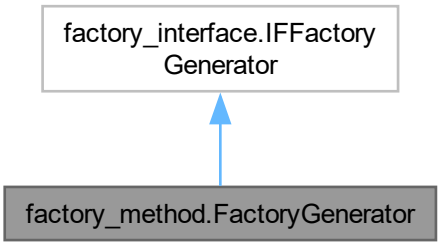
Implements factory_interface.IFFactoryFatherSelection.

The documentation for this class was generated from the following file:

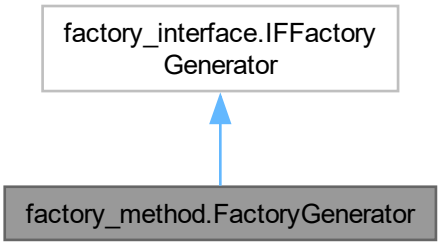
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_method/FactoryFatherSelection.java

5.35 factory_method.FactoryGenerator Class Reference

Inheritance diagram for factory_method.FactoryGenerator:



Collaboration diagram for factory_method.FactoryGenerator:



Public Member Functions

- Generator createGenerator (GeneratorType generatorType) throws IllegalArgumentException, Security↩ Exception, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩ Exception, NoSuchMethodException

5.35.1 Member Function Documentation

5.35.1.1 createGenerator()

```
Generator factory_method.FactoryGenerator.createGenerator (
            GeneratorType generatorType) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

Implements factory_interface.IFFactoryGenerator.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_method/FactoryGenerator.java

5.36 factory_method.FactoryLoader Class Reference

Static Public Member Functions

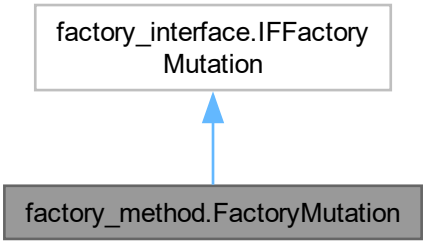
- static Object **getInstance** (String className) throws ClassNotFoundException, IllegalArgumentException, SecurityException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException

The documentation for this class was generated from the following file:

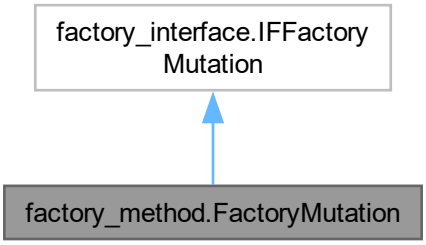
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_method/FactoryLoader.java

5.37 factory_method.FactoryMutation Class Reference

Inheritance diagram for factory_method.FactoryMutation:



Collaboration diagram for factory_method.FactoryMutation:



Public Member Functions

- Mutation createMutation (MutationType typeMutation) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException

5.37.1 Member Function Documentation

5.37.1.1 createMutation()

```
Mutation factory_method.FactoryMutation.createMutation (
            MutationType typeMutation) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

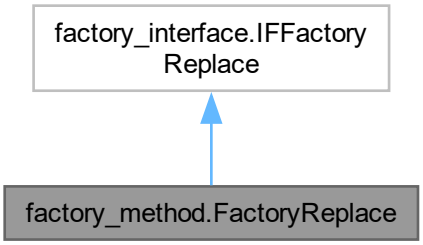
Implements factory_interface.IFFactoryMutation.

The documentation for this class was generated from the following file:

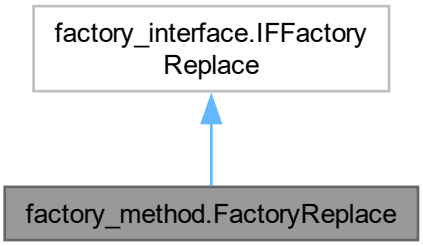
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_method/FactoryMutation.java

5.38 factory_method.FactoryReplace Class Reference

Inheritance diagram for factory_method.FactoryReplace:



Collaboration diagram for factory_method.FactoryReplace:



Public Member Functions

- Replace createReplace (ReplaceType typereplace) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, No↩ SuchMethodException

5.38.1 Member Function Documentation

5.38.1.1 createReplace()

```
Replace factory_method.FactoryReplace.createReplace (
            ReplaceType typereplace) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

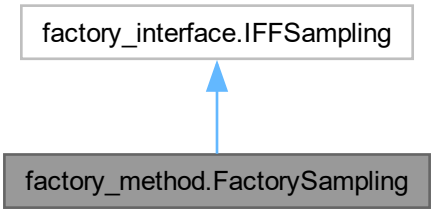
Implements factory_interface.IFFactoryReplace.

The documentation for this class was generated from the following file:

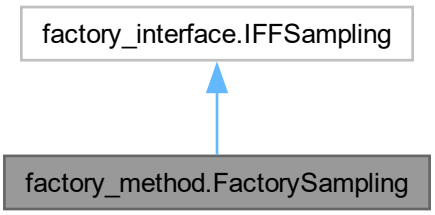
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_method/FactoryReplace.java

5.39 factory_method.FactorySampling Class Reference

Inheritance diagram for factory_method.FactorySampling:



Collaboration diagram for factory_method.FactorySampling:



Public Member Functions

- Sampling createSampling (SamplingType typesampling) throws IllegalArgumentException, Security↩ Exception, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩ Exception, NoSuchMethodException

5.39.1 Member Function Documentation

5.39.1.1 createSampling()

```
Sampling factory_method.FactorySampling.createSampling (
            SamplingType typesampling) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

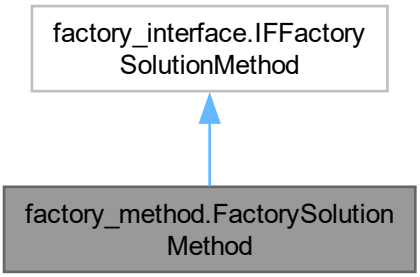
Implements factory_interface.IFFSampling.

The documentation for this class was generated from the following file:

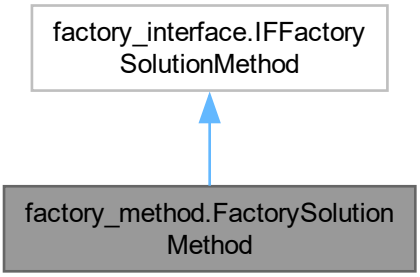
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_method/FactorySampling.java

5.40 factory_method.FactorySolutionMethod Class Reference

Inheritance diagram for factory_method.FactorySolutionMethod:



Collaboration diagram for factory_method.FactorySolutionMethod:



Public Member Functions

- SolutionMethod createdSolutionMethod (TypeSolutionMethod method) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, Invocation↩ TargetException, NoSuchMethodException

5.40.1 Member Function Documentation

5.40.1.1 createdSolutionMethod()

```
SolutionMethod factory_method.FactorySolutionMethod.createdSolutionMethod (
            TypeSolutionMethod method) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

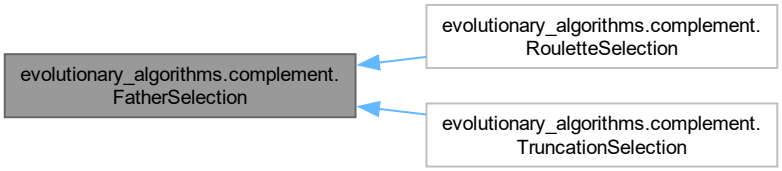
Implements factory_interface.IFFactorySolutionMethod.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_method/FactorySolutionMethod.java

5.41 evolutionary_algorithms.complement.FatherSelection Class Reference

Inheritance diagram for evolutionary_algorithms.complement.FatherSelection:



Public Member Functions

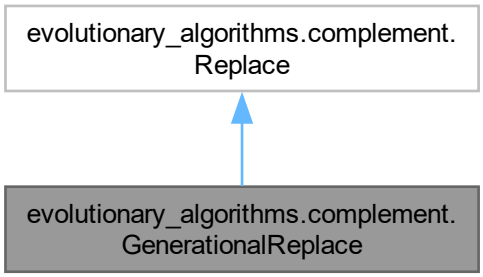
- abstract List< State > **selection** (List< State > listState, int truncation)

The documentation for this class was generated from the following file:

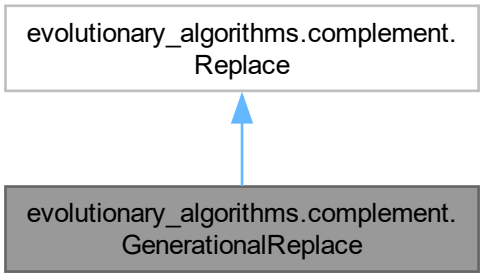
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/FatherSelection.java

5.42 evolutionary_algorithms.complement.GenerationalReplace Class Reference

Inheritance diagram for evolutionary_algorithms.complement.GenerationalReplace:



Collaboration diagram for evolutionary_algorithms.complement.GenerationalReplace:



Public Member Functions

- List< State > replace (State stateCandidate, List< State > listState) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException

5.42.1 Member Function Documentation

5.42.1.1 replace()

```
List< State > evolutionary_algorithms.complement.GenerationalReplace.replace (
            State stateCandidate,
            List< State > listState) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

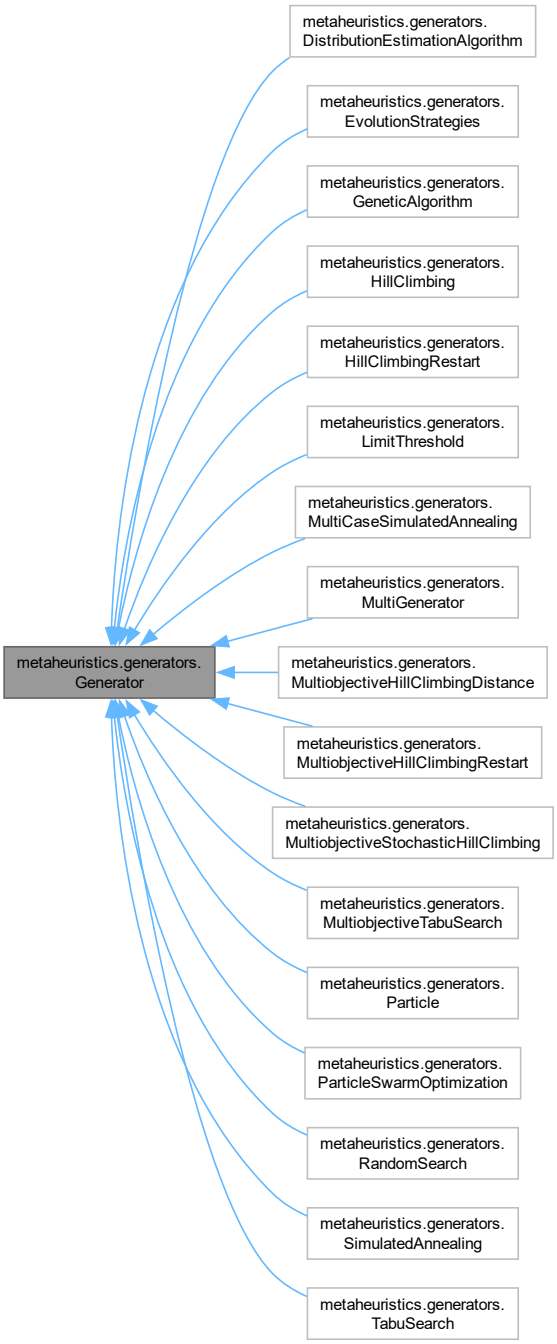
Reimplemented from evolutionary_algorithms.complement.Replace.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/GenerationalReplace.java

5.43 metaheuristics.generators.Generator Class Reference

Inheritance diagram for metaheuristics.generators.Generator:



Public Member Functions

- abstract State **generate** (Integer operatornumber) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, No↩ SuchMethodException

- abstract void **updateReference** (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- abstract State **getReference** ()
- abstract void **setInitialReference** (State stateInitialRef)
- abstract GeneratorType **getType** ()
- abstract List< State > **getReferenceList** ()
- abstract List< State > **getSonList** ()
- abstract boolean **awardUpdateREF** (State stateCandidate)
- abstract void **setWeight** (float weight)
- abstract float **getWeight** ()
- abstract float[ ] **getTrace** ()
- abstract int[ ] **getListCountBetterGender** ()
- abstract int[ ] **getListCountGender** ()

Public Attributes

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/Generator.java

5.44 metaheuristics.generators.GeneratorsTest Class Reference

Public Member Functions

- void **setUp** ()
- void **testHillClimbingRestartInitialization** ()

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/GeneratorsTest.java

5.45 metaheuristics.generators.GeneratorType Enum Reference

Public Attributes

- **HillClimbing**
- **TabuSearch**
- **SimulatedAnnealing**
- **RandomSearch**
- **LimitThreshold**
- **HillClimbingRestart**
- **GeneticAlgorithm**
- **EvolutionStrategies**

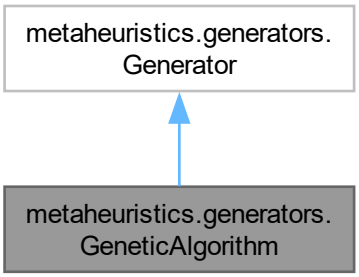
- **DistributionEstimationAlgorithm**
- **ParticleSwarmOptimization**
- **MultiGenerator**
- **MultiobjectiveTabuSearch**
- **MultiobjectiveStochasticHillClimbing**
- **MultiCaseSimulatedAnnealing**
- **MultiobjectiveHillClimbingRestart**
- **MultiobjectiveHillClimbingDistance**

The documentation for this enum was generated from the following file:

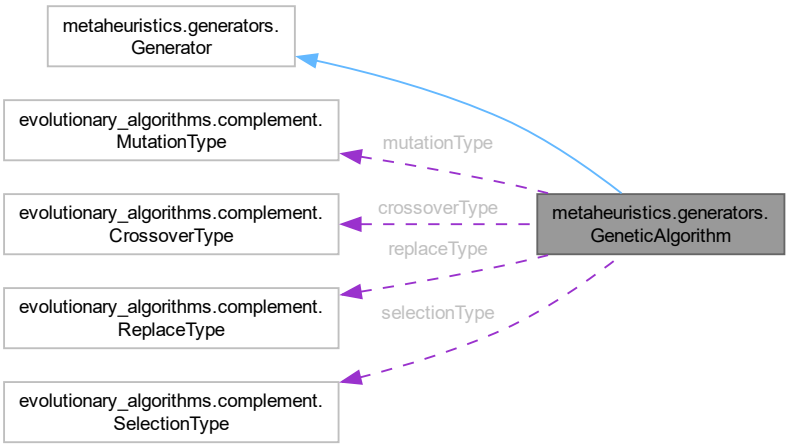
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/GeneratorType.java

5.46 metaheuristics.generators.GeneticAlgorithm Class Reference

Inheritance diagram for metaheuristics.generators.GeneticAlgorithm:



Collaboration diagram for metaheuristics.generators.GeneticAlgorithm:



Public Member Functions

- State generate (Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩ NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException
- State getReference ()
- void **setStateRef** (State stateRef)
- void setInitialReference (State stateInitialRef)
- void updateReference (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- List< State > **getListState** ()
- void **setListState** (List< State > listState)
- List< State > **getListStateRef** ()
- GeneratorType **getGeneratorType** ()
- void **setGeneratorType** (GeneratorType generatorType)
- GeneratorType getType ()
- List< State > getReferenceList ()
- List< State > getSonList ()
- boolean awardUpdateREF (State stateCandidate)
- float getWeight ()
- void setWeight (float weight)
- int[ ] getListCountBetterGender ()
- int[ ] getListCountGender ()
- float[ ] getTrace ()

Static Public Attributes

- static MutationType **mutationType**
- static CrossoverType **crossoverType**
- static ReplaceType **replaceType**
- static SelectionType **selectionType**
- static double **PC**
- static double **PM**
- static int **countRef** = 0
- static int **truncation**
- static int **countGender** = 0
- static int **countBetterGender** = 0

Additional Inherited Members

Public Attributes inherited from metaheuristics.generators.Generator

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

5.46.1 Member Function Documentation

5.46.1.1 awardUpdateREF()

```
boolean metaheuristics.generators.GeneticAlgorithm.awardUpdateREF (
            State stateCandidate)
```

Reimplemented from metaheuristics.generators.Generator.

5.46.1.2 generate()

```
State metaheuristics.generators.GeneticAlgorithm.generate (
            Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩
NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException,
NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

5.46.1.3 getListCountBetterGender()

```
int[] metaheuristics.generators.GeneticAlgorithm.getListCountBetterGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.46.1.4 getListCountGender()

```
int[] metaheuristics.generators.GeneticAlgorithm.getListCountGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.46.1.5 getReference()

```
State metaheuristics.generators.GeneticAlgorithm.getReference ()
```

Reimplemented from metaheuristics.generators.Generator.

5.46.1.6 getReferenceList()

```
List< State > metaheuristics.generators.GeneticAlgorithm.getReferenceList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.46.1.7 getSonList()

```
List< State > metaheuristics.generators.GeneticAlgorithm.getSonList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.46.1.8 getTrace()

```
float[] metaheuristics.generators.GeneticAlgorithm.getTrace ()
```

Reimplemented from metaheuristics.generators.Generator.

5.46.1.9 getType()

```
GeneratorType metaheuristics.generators.GeneticAlgorithm.getType ()
```

Reimplemented from metaheuristics.generators.Generator.

5.46.1.10 getWeight()

```
float metaheuristics.generators.GeneticAlgorithm.getWeight ()
```

Reimplemented from metaheuristics.generators.Generator.

5.46.1.11 setInitialReference()

```
void metaheuristics.generators.GeneticAlgorithm.setInitialReference (
            State stateInitialRef)
```

Reimplemented from metaheuristics.generators.Generator.

5.46.1.12 setWeight()

```
void metaheuristics.generators.GeneticAlgorithm.setWeight (
            float weight)
```

Reimplemented from metaheuristics.generators.Generator.

5.46.1.13 updateReference()

```
void metaheuristics.generators.GeneticAlgorithm.updateReference (
            State stateCandidate,
            Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/GeneticAlgorithm.java

5.47 metaheuristics.generators.GeneticAlgorithmTest Class Reference

Public Member Functions

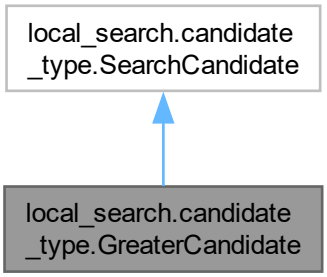
- void **setUp** () throws Exception
- void **tearDown** () throws Exception
- void **testGetType** ()
- void **testGetReference** ()
- void **testUpdateReference** () throws Exception
- void **testGetListStateRef_FromRandomSearch** ()
- void **testGetListStateRef_FromOtherGenerator** ()
- void **testGetSetters** ()
- void **testGetReferenceList** ()
- void **testGetListState** ()

The documentation for this class was generated from the following file:

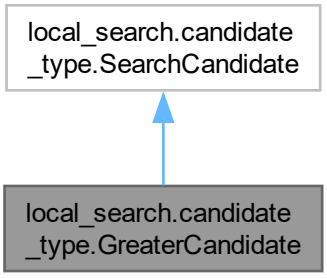
- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/GeneticAlgorithmTest.java

5.48 local_search.candidate_type.GreaterCandidate Class Reference

Inheritance diagram for local_search.candidate_type.GreaterCandidate:



Collaboration diagram for local_search.candidate_type.GreaterCandidate:



Public Member Functions

- State candidate (State stateReference, List< State > neighborhood)

5.48.1 Member Function Documentation

5.48.1.1 candidate()

```
State local_search.candidate_type.GreaterCandidate.candidate (
            State stateReference,
            List< State > neighborhood)
```

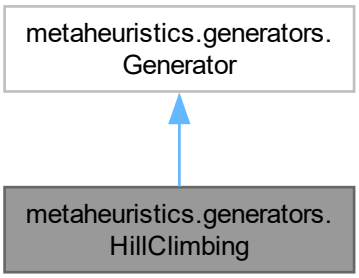
Implements local_search.candidate_type.SearchCandidate.

The documentation for this class was generated from the following file:

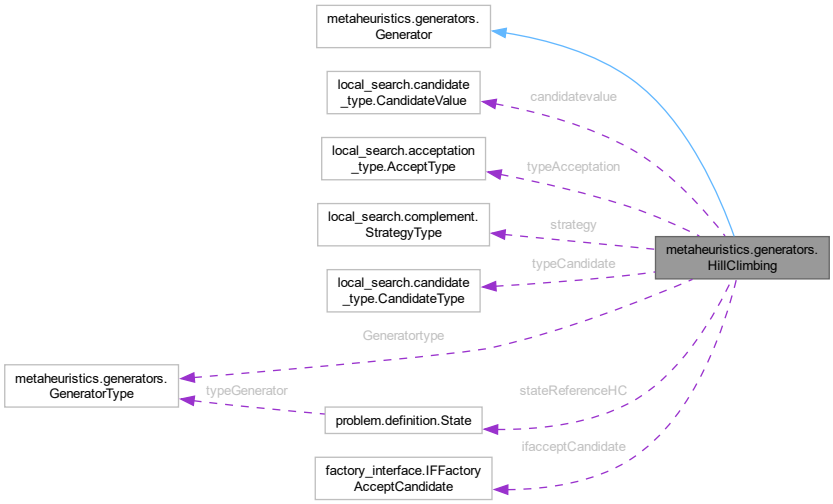
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/candidate_type/GreaterCandidate.java

5.49 metaheuristics.generators.HillClimbing Class Reference

Inheritance diagram for metaheuristics.generators.HillClimbing:



Collaboration diagram for metaheuristics.generators.HillClimbing:



Public Member Functions

- State generate (Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩ NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException
- void updateReference (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- List< State > getReferenceList ()
- State getReference ()
- void **setStateRef** (State stateRef)
- void setInitialReference (State stateInitialRef)
- GeneratorType **getGeneratorType** ()
- void **setGeneratorType** (GeneratorType Generatortype)
- GeneratorType getType ()
- List< State > getSonList ()
- void **setTypeCandidate** (CandidateType typeCandidate)
- boolean awardUpdateREF (State stateCandidate)
- float getWeight ()
- void setWeight (float weight)
- int[ ] getListCountBetterGender ()
- int[ ] getListCountGender ()
- float[ ] getTrace ()

Static Public Attributes

- static int **countGender** = 0
- static int **countBetterGender** = 0

Protected Attributes

- CandidateValue **candidatevalue**
- AcceptType **typeAcceptation**
- StrategyType **strategy**
- CandidateType **typeCandidate**
- State **stateReferenceHC**
- IFFactoryAcceptCandidate **ifacceptCandidate**
- GeneratorType **Generatortype**
- List< State > **listStateReference** = new ArrayList<State>()
- float **weight**

Additional Inherited Members

Public Attributes inherited from metaheuristics.generators.Generator

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

5.49.1 Member Function Documentation

5.49.1.1 awardUpdateREF()

```
boolean metaheuristics.generators.HillClimbing.awardUpdateREF (
            State stateCandidate)
```

Reimplemented from metaheuristics.generators.Generator.

5.49.1.2 generate()

```
State metaheuristics.generators.HillClimbing.generate (
            Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩
NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException,
NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

5.49.1.3 getListCountBetterGender()

```
int[ ] metaheuristics.generators.HillClimbing.getListCountBetterGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.49.1.4 getListCountGender()

```
int[ ] metaheuristics.generators.HillClimbing.getListCountGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.49.1.5 getReference()

```
State metaheuristics.generators.HillClimbing.getReference ()
```

Reimplemented from metaheuristics.generators.Generator.

5.49.1.6 getReferenceList()

```
List< State > metaheuristics.generators.HillClimbing.getReferenceList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.49.1.7 getSonList()

```
List< State > metaheuristics.generators.HillClimbing.getSonList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.49.1.8 getTrace()

```
float[] metaheuristics.generators.HillClimbing.getTrace ()
```

Reimplemented from metaheuristics.generators.Generator.

5.49.1.9 getType()

```
GeneratorType metaheuristics.generators.HillClimbing.getType ()
```

Reimplemented from metaheuristics.generators.Generator.

5.49.1.10 getWeight()

```
float metaheuristics.generators.HillClimbing.getWeight ()
```

Reimplemented from metaheuristics.generators.Generator.

5.49.1.11 setInitialReference()

```
void metaheuristics.generators.HillClimbing.setInitialReference (
            State stateInitialRef)
```

Reimplemented from metaheuristics.generators.Generator.

5.49.1.12 setWeight()

```
void metaheuristics.generators.HillClimbing.setWeight (
            float weight)
```

Reimplemented from metaheuristics.generators.Generator.

5.49.1.13 updateReference()

```
void metaheuristics.generators.HillClimbing.updateReference (
            State stateCandidate,
            Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

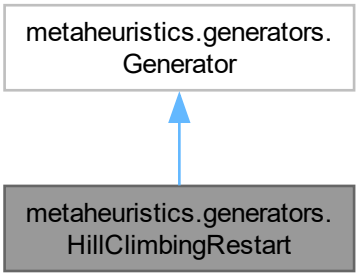
Reimplemented from metaheuristics.generators.Generator.

The documentation for this class was generated from the following file:

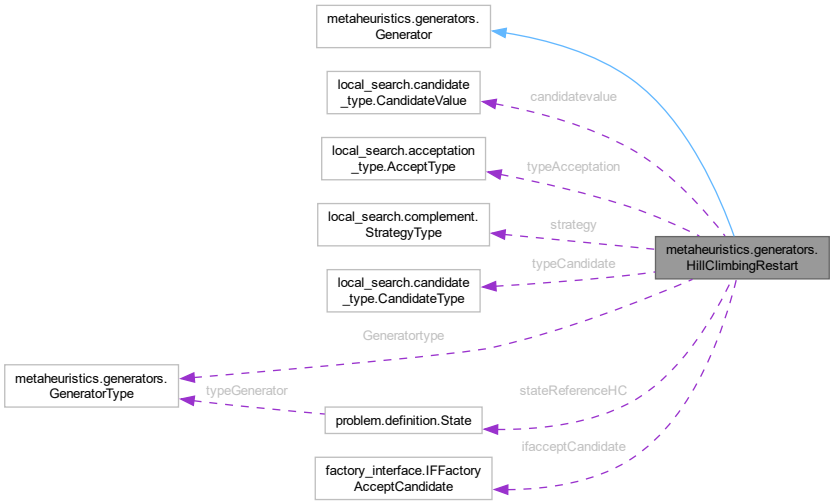
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/HillClimbing.java

5.50 metaheuristics.generators.HillClimbingRestart Class Reference

Inheritance diagram for metaheuristics.generators.HillClimbingRestart:



Collaboration diagram for metaheuristics.generators.HillClimbingRestart:



Public Member Functions

- State generate (Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩ NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException
- void updateReference (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- List< State > getReferenceList ()
- State getReference ()
- void **setStateRef** (State stateRef)
- void setInitialReference (State stateInitialRef)
- GeneratorType **getGeneratorType** ()
- void **setGeneratorType** (GeneratorType Generatortype)
- GeneratorType getType ()
- List< State > getSonList ()
- void **setTypeCandidate** (CandidateType typeCandidate)
- boolean awardUpdateREF (State stateCandidate)
- float getWeight ()
- void setWeight (float weight)
- int[ ] getListCountBetterGender ()
- int[ ] getListCountGender ()
- float[ ] getTrace ()

Static Public Attributes

- static int **count**
- static int **countCurrent**
- static int **countGender** = 0
- static int **countBetterGender** = 0

Protected Attributes

- CandidateValue **candidatevalue**
- AcceptType **typeAcceptation**
- StrategyType **strategy**
- CandidateType **typeCandidate**
- State **stateReferenceHC**
- IFFactoryAcceptCandidate **ifacceptCandidate**
- GeneratorType **Generatortype**
- List< State > **listStateReference** = new ArrayList<State>()
- float **weight**

Additional Inherited Members

Public Attributes inherited from metaheuristics.generators.Generator

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

5.50.1 Member Function Documentation

5.50.1.1 awardUpdateREF()

```
boolean metaheuristics.generators.HillClimbingRestart.awardUpdateREF (
            State stateCandidate)
```

Reimplemented from metaheuristics.generators.Generator.

5.50.1.2 generate()

```
State metaheuristics.generators.HillClimbingRestart.generate (
            Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩
NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException,
NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

5.50.1.3 getListCountBetterGender()

```
int[ ] metaheuristics.generators.HillClimbingRestart.getListCountBetterGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.50.1.4 getListCountGender()

```
int[ ] metaheuristics.generators.HillClimbingRestart.getListCountGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.50.1.5 getReference()

```
State metaheuristics.generators.HillClimbingRestart.getReference ()
```

Reimplemented from metaheuristics.generators.Generator.

5.50.1.6 getReferenceList()

```
List< State > metaheuristics.generators.HillClimbingRestart.getReferenceList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.50.1.7 getSonList()

```
List< State > metaheuristics.generators.HillClimbingRestart.getSonList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.50.1.8 getTrace()

```
float[] metaheuristics.generators.HillClimbingRestart.getTrace ()
```

Reimplemented from metaheuristics.generators.Generator.

5.50.1.9 getType()

```
GeneratorType metaheuristics.generators.HillClimbingRestart.getType ()
```

Reimplemented from metaheuristics.generators.Generator.

5.50.1.10 getWeight()

```
float metaheuristics.generators.HillClimbingRestart.getWeight ()
```

Reimplemented from metaheuristics.generators.Generator.

5.50.1.11 setInitialReference()

```
void metaheuristics.generators.HillClimbingRestart.setInitialReference (
            State stateInitialRef)
```

Reimplemented from metaheuristics.generators.Generator.

5.50.1.12 setWeight()

```
void metaheuristics.generators.HillClimbingRestart.setWeight (
            float weight)
```

Reimplemented from metaheuristics.generators.Generator.

5.50.1.13 updateReference()

```
void metaheuristics.generators.HillClimbingRestart.updateReference (
            State stateCandidate,
            Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/HillClimbingRestart.java

5.51 metaheuristics.generators.HillClimbingRestartTest Class Reference

Public Member Functions

- void **setUp** ()
- void **testInitialization** ()
- void **testGenerate_NoRestart** () throws Exception
- void **testGenerate_Restart** () throws Exception
- void **testUpdateReference** () throws Exception

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/HillClimbingRestartTest.java

5.52 metaheuristics.generators.HillClimbingTest Class Reference

Public Member Functions

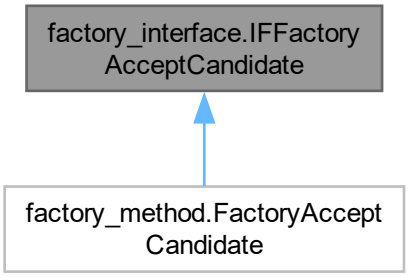
- void **setUp** () throws Exception
- void **tearDown** () throws Exception
- void **testGenerate** () throws Exception
- void **testSetAndGetReference** ()
- void **testGetType** ()
- void **testUpdateReference** () throws Exception
- void **testConstructorMaximizar** () throws Exception
- void **testGetReferenceList** ()
- void **testSetStateRef** ()
- void **testSetGeneratorType** ()
- void **testSetTypeCandidate** ()
- void **testGettersAndSetters** ()

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/HillClimbingTest.java

5.53 factory_interface.IFFactoryAcceptCandidate Interface Reference

Inheritance diagram for factory_interface.IFFactoryAcceptCandidate:



Public Member Functions

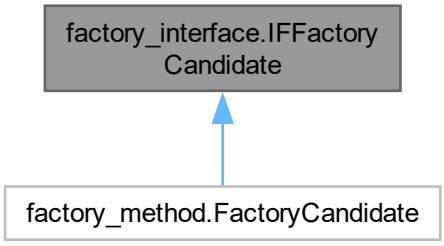
- AcceptableCandidate **createAcceptCandidate** (AcceptType typeacceptation) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException

The documentation for this interface was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_interface/IFFactoryAcceptCandidate.java

5.54 factory_interface.IFFactoryCandidate Interface Reference

Inheritance diagram for factory_interface.IFFactoryCandidate:



Public Member Functions

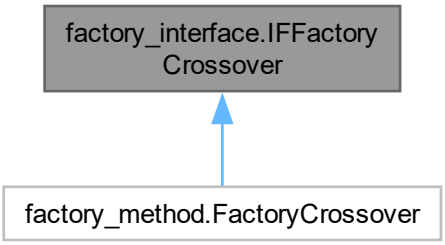
- SearchCandidate **createSearchCandidate** (CandidateType typeCandidate) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException

The documentation for this interface was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_interface/IFFactoryCandidate.java

5.55 factory_interface.IFFactoryCrossover Interface Reference

Inheritance diagram for factory_interface.IFFactoryCrossover:



Public Member Functions

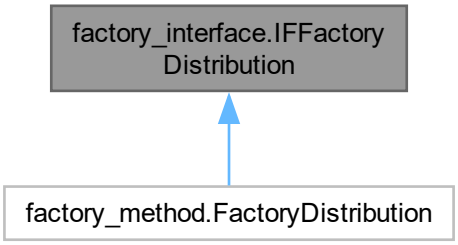
- Crossover **createCrossover** (CrossoverType Crossovertype) throws IllegalArgumentException, Security↩ Exception, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩ Exception, NoSuchMethodException

The documentation for this interface was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_interface/IFFactoryCrossover.java

5.56 factory_interface.IFFactoryDistribution Interface Reference

Inheritance diagram for factory_interface.IFFactoryDistribution:



Public Member Functions

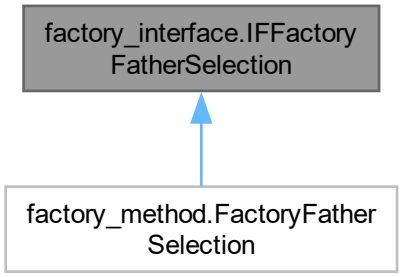
- Distribution **createDistribution** (DistributionType typedistribution) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, Invocation↩ TargetException, NoSuchMethodException

The documentation for this interface was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_interface/IFFactoryDistribution.java

5.57 factory_interface.IFFactoryFatherSelection Interface Reference

Inheritance diagram for factory_interface.IFFactoryFatherSelection:



Public Member Functions

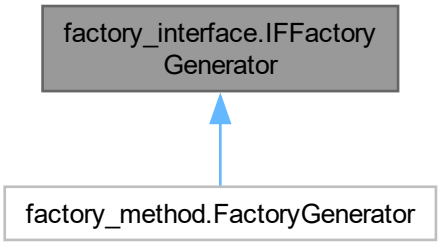
- FatherSelection **createSelectFather** (SelectionType selectionType) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException

The documentation for this interface was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_interface/IFFactoryFatherSelection.java

5.58 factory_interface.IFFactoryGenerator Interface Reference

Inheritance diagram for factory_interface.IFFactoryGenerator:



Public Member Functions

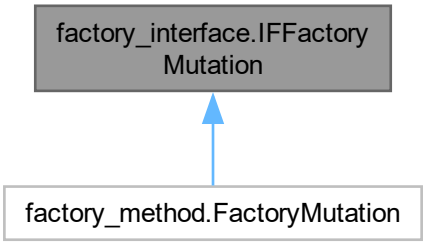
- Generator **createGenerator** (GeneratorType Generatortype) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException

The documentation for this interface was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_interface/IFFactoryGenerator.java

5.59 factory_interface.IFFactoryMutation Interface Reference

Inheritance diagram for factory_interface.IFFactoryMutation:



Public Member Functions

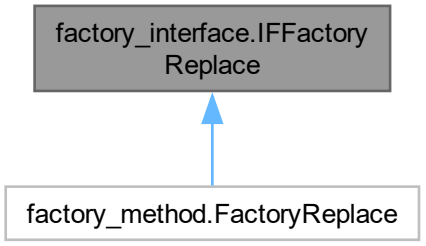
- Mutation **createMutation** (MutationType typeMutation) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, No↩ SuchMethodException

The documentation for this interface was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_interface/IFFactoryMutation.java

5.60 factory_interface.IFFactoryReplace Interface Reference

Inheritance diagram for factory_interface.IFFactoryReplace:



Public Member Functions

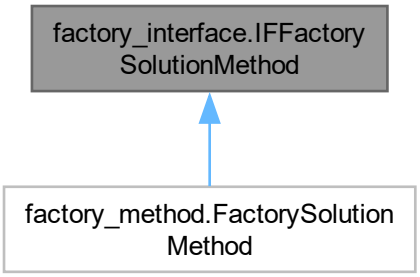
- Replace **createReplace** (ReplaceType typereplace) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, No↩ SuchMethodException

The documentation for this interface was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_interface/IFFactoryReplace.java

5.61 factory_interface.IFFactorySolutionMethod Interface Reference

Inheritance diagram for factory_interface.IFFactorySolutionMethod:



Public Member Functions

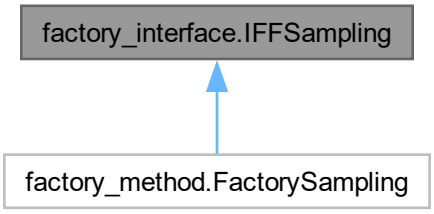
- SolutionMethod **createdSolutionMethod** (TypeSolutionMethod method) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, Invocation↩ TargetException, NoSuchMethodException

The documentation for this interface was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_interface/IFFactorySolutionMethod.java

5.62 factory_interface.IFFSampling Interface Reference

Inheritance diagram for factory_interface.IFFSampling:



Public Member Functions

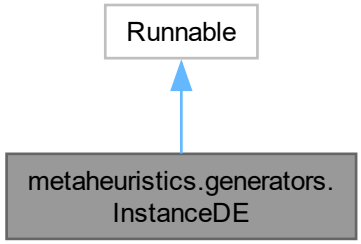
- Sampling **createSampling** (SamplingType typesampling) throws IllegalArgumentException, Security↩ Exception, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩ Exception, NoSuchMethodException

The documentation for this interface was generated from the following file:

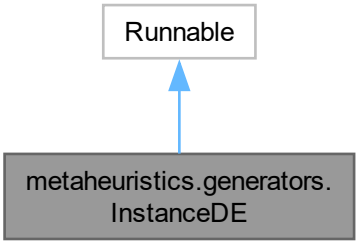
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/factory_interface/IFFSampling.java

5.63 metaheuristics.generators.InstanceDE Class Reference

Inheritance diagram for metaheuristics.generators.InstanceDE:



Collaboration diagram for metaheuristics.generators.InstanceDE:



Public Member Functions

- void **run** ()
- boolean **isTerminate** ()
- void **setTerminate** (boolean terminate)

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/InstanceDE.java

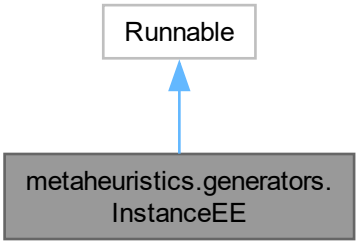
5.64 metaheuristics.generators.InstanceDETest Class Reference

The documentation for this class was generated from the following file:

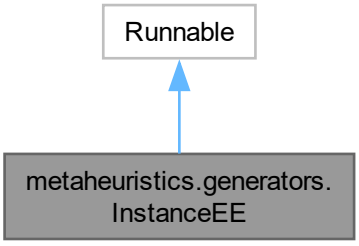
- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/InstanceDETest.java

5.65 metaheuristics.generators.InstanceEE Class Reference

Inheritance diagram for metaheuristics.generators.InstanceEE:



Collaboration diagram for metaheuristics.generators.InstanceEE:



Public Member Functions

- void **run** ()
- boolean **isTerminate** ()
- void **setTerminate** (boolean terminate)

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/InstanceEE.java

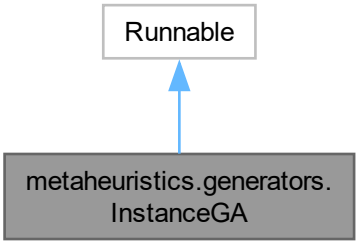
5.66 metaheuristics.generators.InstanceEETest Class Reference

The documentation for this class was generated from the following file:

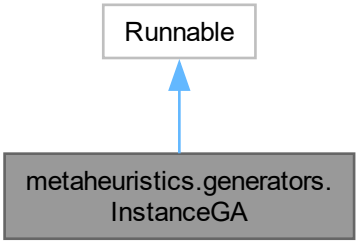
- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/InstanceEETest.java

5.67 metaheuristics.generators.InstanceGA Class Reference

Inheritance diagram for metaheuristics.generators.InstanceGA:



Collaboration diagram for metaheuristics.generators.InstanceGA:



Public Member Functions

- void **run** ()
- boolean **isTerminate** ()
- void **setTerminate** (boolean terminate)

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/InstanceGA.java

5.68 metaheuristics.generators.InstanceGATest Class Reference

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/InstanceGATest.java

5.69 metaheuristics.generators.InstanceTest Class Reference

Public Member Functions

- void **testInstanceGA** ()
- void **testInstanceEE** ()
- void **testInstanceDE** ()

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/InstanceTest.java

5.70 metaheuristics.generators.LimitRoulette Class Reference

Public Member Functions

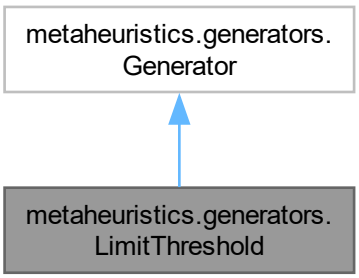
- Generator **getGenerator** ()
- void **setGenerator** (Generator generator)
- float **getLimitHigh** ()
- void **setLimitHigh** (float limitHigh)
- float **getLimitLow** ()
- void **setLimitLow** (float limitLow)

The documentation for this class was generated from the following file:

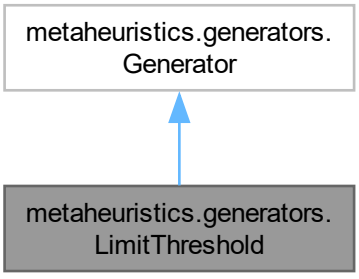
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/LimitRoulette.java

5.71 metaheuristics.generators.LimitThreshold Class Reference

Inheritance diagram for metaheuristics.generators.LimitThreshold:



Collaboration diagram for metaheuristics.generators.LimitThreshold:



Public Member Functions

- GeneratorType **getTypeGenerator** ()
- void **setTypeGenerator** (GeneratorType typeGenerator)
- State generate (Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩ NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException
- void updateReference (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- State getReference ()
- void **setStateRef** (State stateRef)
- void setInitialReference (State stateInitialRef)
- GeneratorType getType ()
- List< State > getReferenceList ()
- List< State > getSonList ()
- void **setTypeCandidate** (CandidateType typeCandidate)
- boolean awardUpdateREF (State stateCandidate)
- float getWeight ()
- void setWeight (float weight)
- int[ ] getListCountBetterGender ()
- int[ ] getListCountGender ()
- float[ ] getTrace ()

Static Public Attributes

- static int **countGender** = 0
- static int **countBetterGender** = 0

Additional Inherited Members

Public Attributes inherited from metaheuristics.generators.Generator

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

5.71.1 Member Function Documentation

5.71.1.1 awardUpdateREF()

```
boolean metaheuristics.generators.LimitThreshold.awardUpdateREF (
            State stateCandidate)
```

Reimplemented from metaheuristics.generators.Generator.

5.71.1.2 generate()

```
State metaheuristics.generators.LimitThreshold.generate (
            Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩
NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException,
NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

5.71.1.3 getListCountBetterGender()

```
int[] metaheuristics.generators.LimitThreshold.getListCountBetterGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.71.1.4 getListCountGender()

```
int[] metaheuristics.generators.LimitThreshold.getListCountGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.71.1.5 getReference()

```
State metaheuristics.generators.LimitThreshold.getReference ()
```

Reimplemented from metaheuristics.generators.Generator.

5.71.1.6 getReferenceList()

```
List< State > metaheuristics.generators.LimitThreshold.getReferenceList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.71.1.7 getSonList()

```
List< State > metaheuristics.generators.LimitThreshold.getSonList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.71.1.8 getTrace()

```
float[] metaheuristics.generators.LimitThreshold.getTrace ()
```

Reimplemented from metaheuristics.generators.Generator.

5.71.1.9 getType()

```
GeneratorType metaheuristics.generators.LimitThreshold.getType ()
```

Reimplemented from metaheuristics.generators.Generator.

5.71.1.10 getWeight()

```
float metaheuristics.generators.LimitThreshold.getWeight ()
```

Reimplemented from metaheuristics.generators.Generator.

5.71.1.11 setInitialReference()

```
void metaheuristics.generators.LimitThreshold.setInitialReference (
            State stateInitialRef)
```

Reimplemented from metaheuristics.generators.Generator.

5.71.1.12 setWeight()

```
void metaheuristics.generators.LimitThreshold.setWeight (
            float weight)
```

Reimplemented from metaheuristics.generators.Generator.

5.71.1.13 updateReference()

```
void metaheuristics.generators.LimitThreshold.updateReference (
            State stateCandidate,
            Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/LimitThreshold.java

5.72 metaheuristics.generators.LimitThresholdTest Class Reference

Public Member Functions

- void **setUp** ()
- void **testInitialization** ()
- void **testGenerate** () throws Exception
- void **testUpdateReference** () throws Exception

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/LimitThresholdTest.java

5.73 problem.extension.MetricasMultiobjetivo Class Reference

Public Member Functions

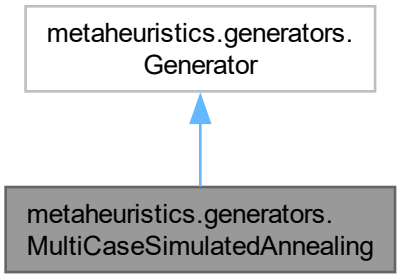
- double **TasaError** (List< State > solutionsFPcurrent, List< State > solutionsFPtrue) throws BiffException, IOException
- double **DistanciaGeneracional** (List< State > solutionsFPcurrent, List< State > solutionsFPtrue) throws BiffException, IOException
- double **Dispersion** (ArrayList< State > solutions) throws BiffException, IOException
- double **CalcularMin** (ArrayList< Double > allMetrics)
- double **CalcularMax** (ArrayList< Double > allMetrics)
- double **CalcularMedia** (ArrayList< Double > allMetrics)

The documentation for this class was generated from the following file:

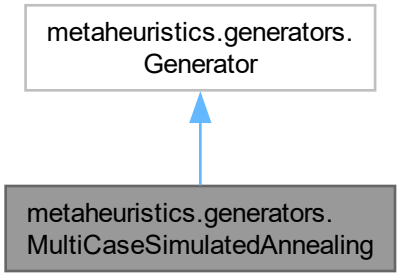
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/problem/extension/MetricasMultiobjetivo.java

5.74 metaheuristics.generators.MultiCaseSimulatedAnnealing Class Reference

Inheritance diagram for metaheuristics.generators.MultiCaseSimulatedAnnealing:



Collaboration diagram for metaheuristics.generators.MultiCaseSimulatedAnnealing:



Public Member Functions

- GeneratorType **getTypeGenerator** ()
- void **setTypeGenerator** (GeneratorType typeGenerator)
- State generate (Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩ NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException
- State getReference ()
- void **setStateRef** (State stateRef)
- void setInitialReference (State stateInitialRef)
- void updateReference (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- GeneratorType getType ()
- List< State > getReferenceList ()
- List< State > getSonList ()
- boolean awardUpdateREF (State stateCandidate)
- float getWeight ()
- void setWeight (float weight)
- int[ ] getListCountBetterGender ()
- int[ ] getListCountGender ()
- float[ ] getTrace ()

Static Public Attributes

- static Double **alpha**
- static Double **tinitial**
- static Double **tfinal**
- static int **countIterationsT**

Additional Inherited Members

Public Attributes inherited from metaheuristics.generators.Generator

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

5.74.1 Member Function Documentation

5.74.1.1 awardUpdateREF()

```
boolean metaheuristics.generators.MultiCaseSimulatedAnnealing.awardUpdateREF (
            State stateCandidate)
```

Reimplemented from metaheuristics.generators.Generator.

5.74.1.2 generate()

```
State metaheuristics.generators.MultiCaseSimulatedAnnealing.generate (
            Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩
NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException,
NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

5.74.1.3 getListCountBetterGender()

```
int[] metaheuristics.generators.MultiCaseSimulatedAnnealing.getListCountBetterGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.74.1.4 getListCountGender()

```
int[] metaheuristics.generators.MultiCaseSimulatedAnnealing.getListCountGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.74.1.5 getReference()

```
State metaheuristics.generators.MultiCaseSimulatedAnnealing.getReference ()
```

Reimplemented from metaheuristics.generators.Generator.

5.74.1.6 getReferenceList()

```
List< State > metaheuristics.generators.MultiCaseSimulatedAnnealing.getReferenceList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.74.1.7 getSonList()

```
List< State > metaheuristics.generators.MultiCaseSimulatedAnnealing.getSonList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.74.1.8 getTrace()

```
float[] metaheuristics.generators.MultiCaseSimulatedAnnealing.getTrace ()
```

Reimplemented from metaheuristics.generators.Generator.

5.74.1.9 getType()

```
GeneratorType metaheuristics.generators.MultiCaseSimulatedAnnealing.getType ()
```

Reimplemented from metaheuristics.generators.Generator.

5.74.1.10 getWeight()

```
float metaheuristics.generators.MultiCaseSimulatedAnnealing.getWeight ()
```

Reimplemented from metaheuristics.generators.Generator.

5.74.1.11 setInitialReference()

```
void metaheuristics.generators.MultiCaseSimulatedAnnealing.setInitialReference (
            State stateInitialRef)
```

Reimplemented from metaheuristics.generators.Generator.

5.74.1.12 setWeight()

```
void metaheuristics.generators.MultiCaseSimulatedAnnealing.setWeight (
            float weight)
```

Reimplemented from metaheuristics.generators.Generator.

5.74.1.13 updateReference()

```
void metaheuristics.generators.MultiCaseSimulatedAnnealing.updateReference (
            State stateCandidate,
            Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/MultiCaseSimulatedAnnealing.java

5.75 metaheuristics.generators.MultiCaseSimulatedAnnealingTest Class Reference

Public Member Functions

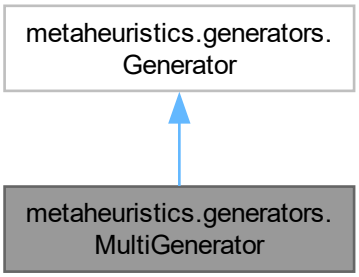
- void **setUp** ()
- void **testInitialization** ()
- void **testGenerate** () throws Exception
- void **testUpdateReference_Cooling** () throws Exception

The documentation for this class was generated from the following file:

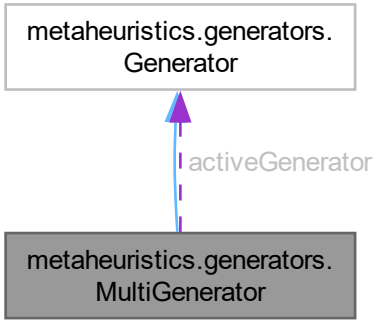
- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/MultiCaseSimulatedAnnealingTest.java

5.76 metaheuristics.generators.MultiGenerator Class Reference

Inheritance diagram for metaheuristics.generators.MultiGenerator:



Collaboration diagram for metaheuristics.generators.MultiGenerator:



Public Member Functions

- void **setGeneratortype** (GeneratorType generatortype)
- State generate (Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩ NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException
- State getReference ()
- List< State > getReferenceList ()
- List< State > getSonList ()
- GeneratorType getType ()
- void setInitialReference (State stateInitialRef)
- void updateReference (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException

- void **updateWeight** (State stateCandidate)
- boolean **searchState** (State stateCandidate)
- float getWeight ()
- Generator **roulette** ()
- boolean awardUpdateREF (State stateCandidate)
- void **updateAwardSC** ()
- void **updateAwardImp** ()
- void setWeight (float weight)
- float[ ] getTrace ()
- void **tournament** (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- Object **clone** ()
- int[ ] getListCountBetterGender ()
- int[ ] getListCountGender ()

Static Public Member Functions

- static void **destroyMultiGenerator** ()
- static void **initializeListGenerator** () throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- static void **initializeGenerators** () throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- static void **createInstanceGeneratorsBPP** ()
- static Generator[ ] **getListGenerators** ()
- static void **setListGenerators** (Generator[ ] listGenerators)
- static Generator **getActiveGenerator** ()
- static void **setActiveGenerator** (Generator activeGenerator)
- static void **setListGeneratedPP** (List< State > listGeneratedPP)

Static Public Attributes

- static List< State > **listGeneratedPP** = new ArrayList<State> ()
- static Generator **activeGenerator**
- static List< State > **listStateReference** = new ArrayList<State>()

Additional Inherited Members

Public Attributes inherited from metaheuristics.generators.Generator

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

5.76.1 Member Function Documentation

5.76.1.1 awardUpdateREF()

```
boolean metaheuristics.generators.MultiGenerator.awardUpdateREF (
            State stateCandidate)
```

Reimplemented from metaheuristics.generators.Generator.

5.76.1.2 generate()

```
State metaheuristics.generators.MultiGenerator.generate (
            Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩
NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException,
NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

5.76.1.3 getListCountBetterGender()

```
int[] metaheuristics.generators.MultiGenerator.getListCountBetterGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.76.1.4 getListCountGender()

```
int[] metaheuristics.generators.MultiGenerator.getListCountGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.76.1.5 getReference()

```
State metaheuristics.generators.MultiGenerator.getReference ()
```

Reimplemented from metaheuristics.generators.Generator.

5.76.1.6 getReferenceList()

```
List< State > metaheuristics.generators.MultiGenerator.getReferenceList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.76.1.7 getSonList()

```
List< State > metaheuristics.generators.MultiGenerator.getSonList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.76.1.8 getTrace()

```
float[] metaheuristics.generators.MultiGenerator.getTrace ()
```

Reimplemented from metaheuristics.generators.Generator.

5.76.1.9 getType()

```
GeneratorType metaheuristics.generators.MultiGenerator.getType ()
```

Reimplemented from metaheuristics.generators.Generator.

5.76.1.10 getWeight()

```
float metaheuristics.generators.MultiGenerator.getWeight ()
```

Reimplemented from metaheuristics.generators.Generator.

5.76.1.11 setInitialReference()

```
void metaheuristics.generators.MultiGenerator.setInitialReference (
            State stateInitialRef)
```

Reimplemented from metaheuristics.generators.Generator.

5.76.1.12 setWeight()

```
void metaheuristics.generators.MultiGenerator.setWeight (
            float weight)
```

Reimplemented from metaheuristics.generators.Generator.

5.76.1.13 updateReference()

```
void metaheuristics.generators.MultiGenerator.updateReference (
            State stateCandidate,
            Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/MultiGenerator.java

5.77 metaheuristics.generators.MultiGeneratorTest Class Reference

Public Member Functions

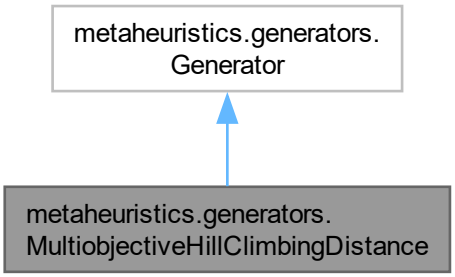
- void **setUp** () throws Exception
- void **tearDown** () throws Exception
- void **testGenerate** () throws Exception
- void **testUpdateReference** () throws Exception
- void **testGetType** ()
- void **testRoulette** ()
- void **testUpdateAwardSC** ()
- void **testUpdateAwardImp** ()
- void **testTournament** () throws Exception
- void **testInitializeGenerators** () throws Exception

The documentation for this class was generated from the following file:

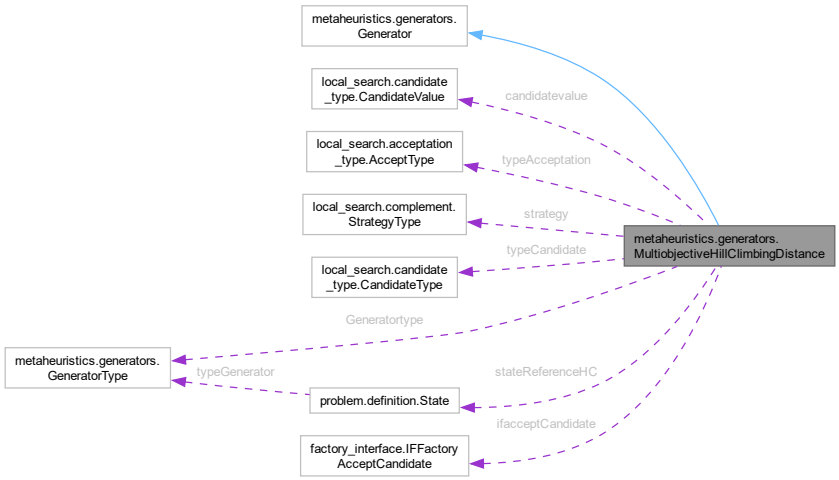
- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/MultiGeneratorTest.java

5.78 metaheuristics.generators.MultiobjectiveHillClimbingDistance Class Reference

Inheritance diagram for metaheuristics.generators.MultiobjectiveHillClimbingDistance:



Collaboration diagram for metaheuristics.generators.MultiobjectiveHillClimbingDistance:



Public Member Functions

- State generate (Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩ NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException
- void updateReference (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- List< State > getReferenceList ()
- State getReference ()
- void **setStateRef** (State stateRef)
- void setInitialReference (State stateInitialRef)
- GeneratorType **getGeneratorType** ()
- void **setGeneratorType** (GeneratorType Generatortype)
- GeneratorType getType ()
- List< State > getSonList ()
- boolean awardUpdateREF (State stateCandidate)
- float getWeight ()
- void setWeight (float weight)
- int[ ] getListCountBetterGender ()
- int[ ] getListCountGender ()
- float[ ] getTrace ()

Static Public Member Functions

- static List< Double > **DistanceCalculateAdd** (List< State > solution)

Static Public Attributes

- static int **sizeNeighbors**
- static List< Double > **distanceSolution** = new ArrayList<Double>()

Protected Attributes

- CandidateValue **candidatevalue**
- AcceptType **typeAcceptation**
- StrategyType **strategy**
- CandidateType **typeCandidate**
- State **stateReferenceHC**
- IFFactoryAcceptCandidate **ifacceptCandidate**
- GeneratorType **Generatortype**
- List< State > **listStateReference** = new ArrayList<State>()
- float **weight**
- List< Float > **listTrace** = new ArrayList<Float>()

Additional Inherited Members

Public Attributes inherited from metaheuristics.generators.Generator

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

5.78.1 Member Function Documentation

5.78.1.1 awardUpdateREF()

```
boolean metaheuristics.generators.MultiobjectiveHillClimbingDistance.awardUpdateREF (
            State stateCandidate)
```

Reimplemented from metaheuristics.generators.Generator.

5.78.1.2 generate()

```
State metaheuristics.generators.MultiobjectiveHillClimbingDistance.generate (
            Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩
NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException,
NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

5.78.1.3 getListCountBetterGender()

```
int[] metaheuristics.generators.MultiobjectiveHillClimbingDistance.getListCountBetterGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.78.1.4 getListCountGender()

```
int[] metaheuristics.generators.MultiobjectiveHillClimbingDistance.getListCountGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.78.1.5 getReference()

```
State metaheuristics.generators.MultiobjectiveHillClimbingDistance.getReference ()
```

Reimplemented from metaheuristics.generators.Generator.

5.78.1.6 getReferenceList()

```
List< State > metaheuristics.generators.MultiobjectiveHillClimbingDistance.getReferenceList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.78.1.7 getSonList()

```
List< State > metaheuristics.generators.MultiobjectiveHillClimbingDistance.getSonList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.78.1.8 getTrace()

```
float[] metaheuristics.generators.MultiobjectiveHillClimbingDistance.getTrace ()
```

Reimplemented from metaheuristics.generators.Generator.

5.78.1.9 getType()

```
GeneratorType metaheuristics.generators.MultiobjectiveHillClimbingDistance.getType ()
```

Reimplemented from metaheuristics.generators.Generator.

5.78.1.10 getWeight()

```
float metaheuristics.generators.MultiobjectiveHillClimbingDistance.getWeight ()
```

Reimplemented from metaheuristics.generators.Generator.

5.78.1.11 setInitialReference()

```
void metaheuristics.generators.MultiobjectiveHillClimbingDistance.setInitialReference (
            State stateInitialRef)
```

Reimplemented from metaheuristics.generators.Generator.

5.78.1.12 setWeight()

```
void metaheuristics.generators.MultiobjectiveHillClimbingDistance.setWeight (
            float weight)
```

Reimplemented from metaheuristics.generators.Generator.

5.78.1.13 updateReference()

```
void metaheuristics.generators.MultiobjectiveHillClimbingDistance.updateReference (
            State stateCandidate,
            Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/MultiobjectiveHillClimbingDistance.↩ java

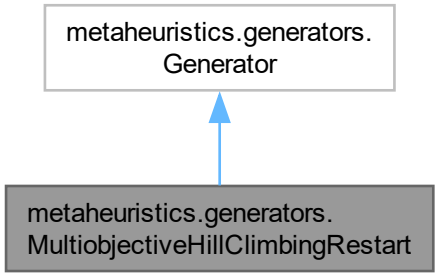
5.79 metaheuristics.generators.MultiobjectiveHillClimbingDistanceTest Class Reference

The documentation for this class was generated from the following file:

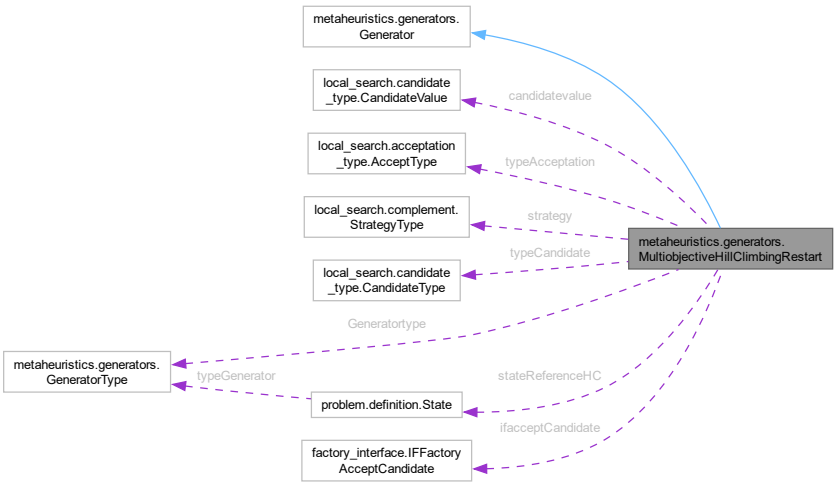
- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/MultiobjectiveHillClimbingDistance↩ Test.java

5.80 metaheuristics.generators.MultiobjectiveHillClimbingRestart Class Reference

Inheritance diagram for metaheuristics.generators.MultiobjectiveHillClimbingRestart:



Collaboration diagram for metaheuristics.generators.MultiobjectiveHillClimbingRestart:



Public Member Functions

- State generate (Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩ NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException
- void updateReference (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- List< State > getReferenceList ()
- State getReference ()
- void **setStateRef** (State stateRef)
- void setInitialReference (State stateInitialRef)
- GeneratorType **getGeneratorType** ()
- void **setGeneratorType** (GeneratorType Generatortype)
- GeneratorType getType ()
- List< State > getSonList ()
- boolean awardUpdateREF (State stateCandidate)
- float getWeight ()
- void setWeight (float weight)
- float[ ] getTrace ()
- int[ ] getListCountBetterGender ()
- int[ ] getListCountGender ()

Static Public Attributes

- static int **sizeNeighbors**

Protected Attributes

- CandidateValue **candidatevalue**
- AcceptType **typeAcceptation**
- StrategyType **strategy**
- CandidateType **typeCandidate**
- State **stateReferenceHC**
- IFFactoryAcceptCandidate **ifacceptCandidate**
- GeneratorType **Generatortype**
- List< State > **listStateReference** = new ArrayList<State>()
- float **weight**
- List< Float > **listTrace** = new ArrayList<Float>()

Additional Inherited Members

Public Attributes inherited from metaheuristics.generators.Generator

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

5.80.1 Member Function Documentation

5.80.1.1 awardUpdateREF()

```
boolean metaheuristics.generators.MultiobjectiveHillClimbingRestart.awardUpdateREF (
            State stateCandidate)
```

Reimplemented from metaheuristics.generators.Generator.

5.80.1.2 generate()

```
State metaheuristics.generators.MultiobjectiveHillClimbingRestart.generate (
            Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩
NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException,
NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

5.80.1.3 getListCountBetterGender()

```
int[] metaheuristics.generators.MultiobjectiveHillClimbingRestart.getListCountBetterGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.80.1.4 getListCountGender()

```
int[] metaheuristics.generators.MultiobjectiveHillClimbingRestart.getListCountGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.80.1.5 getReference()

```
State metaheuristics.generators.MultiobjectiveHillClimbingRestart.getReference ()
```

Reimplemented from metaheuristics.generators.Generator.

5.80.1.6 getReferenceList()

```
List< State > metaheuristics.generators.MultiobjectiveHillClimbingRestart.getReferenceList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.80.1.7 getSonList()

```
List< State > metaheuristics.generators.MultiobjectiveHillClimbingRestart.getSonList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.80.1.8 getTrace()

```
float[] metaheuristics.generators.MultiobjectiveHillClimbingRestart.getTrace ()
```

Reimplemented from metaheuristics.generators.Generator.

5.80.1.9 getType()

```
GeneratorType metaheuristics.generators.MultiobjectiveHillClimbingRestart.getType ()
```

Reimplemented from metaheuristics.generators.Generator.

5.80.1.10 getWeight()

```
float metaheuristics.generators.MultiobjectiveHillClimbingRestart.getWeight ()
```

Reimplemented from metaheuristics.generators.Generator.

5.80.1.11 setInitialReference()

```
void metaheuristics.generators.MultiobjectiveHillClimbingRestart.setInitialReference (
            State stateInitialRef)
```

Reimplemented from metaheuristics.generators.Generator.

5.80.1.12 setWeight()

```
void metaheuristics.generators.MultiobjectiveHillClimbingRestart.setWeight (
            float weight)
```

Reimplemented from metaheuristics.generators.Generator.

5.80.1.13 updateReference()

```
void metaheuristics.generators.MultiobjectiveHillClimbingRestart.updateReference (
            State stateCandidate,
            Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/MultiobjectiveHillClimbingRestart.java

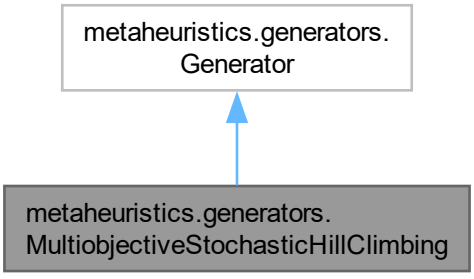
5.81 metaheuristics.generators.MultiobjectiveHillClimbingRestartTest Class Reference

The documentation for this class was generated from the following file:

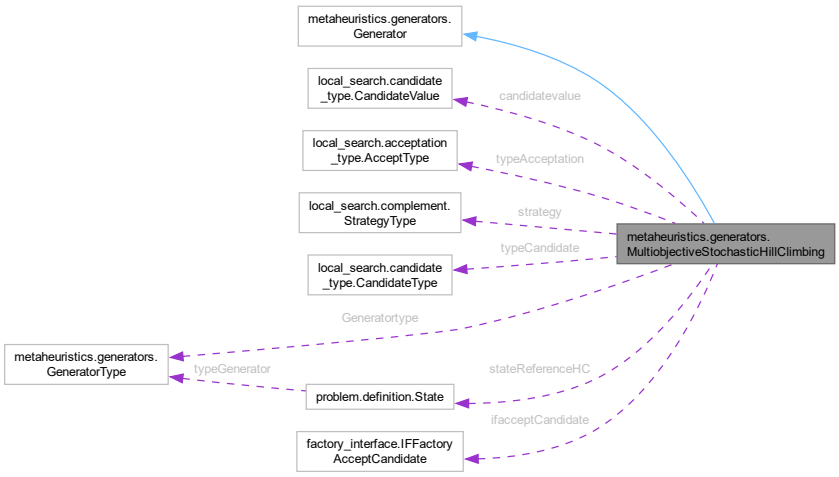
- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/MultiobjectiveHillClimbingRestartTest.↩ java

5.82 metaheuristics.generators.MultiobjectiveStochasticHillClimbing Class Reference

Inheritance diagram for metaheuristics.generators.MultiobjectiveStochasticHillClimbing:



Collaboration diagram for metaheuristics.generators.MultiobjectiveStochasticHillClimbing:



Public Member Functions

- State generate (Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩ NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException
- void updateReference (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- List< State > getReferenceList ()
- State getReference ()
- void **setStateRef** (State stateRef)
- void setInitialReference (State stateInitialRef)
- GeneratorType **getGeneratorType** ()
- void **setGeneratorType** (GeneratorType Generatortype)
- GeneratorType getType ()
- List< State > getSonList ()
- boolean awardUpdateREF (State stateCandidate)
- float getWeight ()
- void setWeight (float weight)
- float[ ] getTrace ()
- int[ ] getListCountBetterGender ()
- int[ ] getListCountGender ()

Protected Attributes

- CandidateValue **candidatevalue**
- AcceptType **typeAcceptation**
- StrategyType **strategy**
- CandidateType **typeCandidate**
- State **stateReferenceHC**
- IFFactoryAcceptCandidate **ifacceptCandidate**
- GeneratorType **Generatortype**
- List< State > **listStateReference** = new ArrayList<State>()
- float **weight**
- List< Float > **listTrace** = new ArrayList<Float>()

Additional Inherited Members

Public Attributes inherited from metaheuristics.generators.Generator

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

5.82.1 Member Function Documentation

5.82.1.1 awardUpdateREF()

```
boolean metaheuristics.generators.MultiobjectiveStochasticHillClimbing.awardUpdateREF (
            State stateCandidate)
```

Reimplemented from metaheuristics.generators.Generator.

5.82.1.2 generate()

```
State metaheuristics.generators.MultiobjectiveStochasticHillClimbing.generate (
            Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩
NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException,
NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

5.82.1.3 getListCountBetterGender()

```
int[] metaheuristics.generators.MultiobjectiveStochasticHillClimbing.getListCountBetterGender
()
```

Reimplemented from metaheuristics.generators.Generator.

5.82.1.4 getListCountGender()

```
int[] metaheuristics.generators.MultiobjectiveStochasticHillClimbing.getListCountGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.82.1.5 getReference()

```
State metaheuristics.generators.MultiobjectiveStochasticHillClimbing.getReference ()
```

Reimplemented from metaheuristics.generators.Generator.

5.82.1.6 getReferenceList()

```
List< State > metaheuristics.generators.MultiobjectiveStochasticHillClimbing.getReferenceList
()
```

Reimplemented from metaheuristics.generators.Generator.

5.82.1.7 getSonList()

```
List< State > metaheuristics.generators.MultiobjectiveStochasticHillClimbing.getSonList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.82.1.8 getTrace()

```
float[] metaheuristics.generators.MultiobjectiveStochasticHillClimbing.getTrace ()
```

Reimplemented from metaheuristics.generators.Generator.

5.82.1.9 getType()

```
GeneratorType metaheuristics.generators.MultiobjectiveStochasticHillClimbing.getType ()
```

Reimplemented from metaheuristics.generators.Generator.

5.82.1.10 getWeight()

```
float metaheuristics.generators.MultiobjectiveStochasticHillClimbing.getWeight ()
```

Reimplemented from metaheuristics.generators.Generator.

5.82.1.11 setInitialReference()

```
void metaheuristics.generators.MultiobjectiveStochasticHillClimbing.setInitialReference (
            State stateInitialRef)
```

Reimplemented from metaheuristics.generators.Generator.

5.82.1.12 setWeight()

```
void metaheuristics.generators.MultiobjectiveStochasticHillClimbing.setWeight (
            float weight)
```

Reimplemented from metaheuristics.generators.Generator.

5.82.1.13 updateReference()

```
void metaheuristics.generators.MultiobjectiveStochasticHillClimbing.updateReference (
            State stateCandidate,
            Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/MultiobjectiveStochasticHillClimbing.↩ java

5.83 metaheuristics.generators.MultiobjectiveStochasticHillClimbing↩ Test Class Reference

Public Member Functions

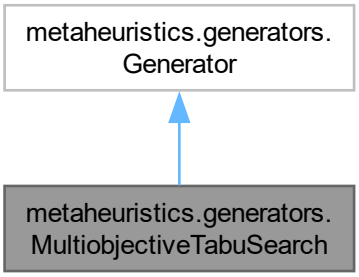
- void **setUp** ()
- void **testInitialization** ()
- void **testGenerate** () throws Exception
- void **testUpdateReference** () throws Exception

The documentation for this class was generated from the following file:

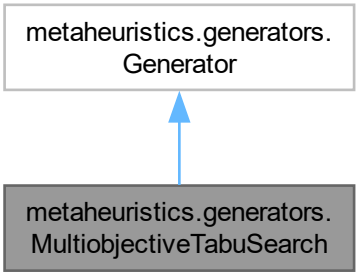
- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/MultiobjectiveStochasticHillClimbing↩ Test.java

5.84 metaheuristics.generators.MultiobjectiveTabuSearch Class Reference

Inheritance diagram for metaheuristics.generators.MultiobjectiveTabuSearch:



Collaboration diagram for metaheuristics.generators.MultiobjectiveTabuSearch:



Public Member Functions

- State **getStateReferenceTS** ()
- void **setStateReferenceTS** (State stateReferenceTS)
- GeneratorType **getTypeGenerator** ()
- void **setTypeGenerator** (GeneratorType typeGenerator)
- State generate (Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩ NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException
- void updateReference (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- GeneratorType getType ()
- List< State > getReferenceList ()
- State getReference ()
- void setInitialReference (State stateInitialRef)
- void **setStateRef** (State stateRef)
- List< State > getSonList ()
- void **setTypeCandidate** (CandidateType typeCandidate)
- boolean awardUpdateREF (State stateCandidate)
- float getWeight ()
- void setWeight (float weight)
- int[ ] getListCountBetterGender ()
- int[ ] getListCountGender ()
- float[ ] getTrace ()

Additional Inherited Members

Public Attributes inherited from metaheuristics.generators.Generator

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

5.84.1 Member Function Documentation

5.84.1.1 awardUpdateREF()

```
boolean metaheuristics.generators.MultiobjectiveTabuSearch.awardUpdateREF (
            State stateCandidate)
```

Reimplemented from metaheuristics.generators.Generator.

5.84.1.2 generate()

```
State metaheuristics.generators.MultiobjectiveTabuSearch.generate (
            Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩
NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException,
NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

5.84.1.3 getListCountBetterGender()

```
int[] metaheuristics.generators.MultiobjectiveTabuSearch.getListCountBetterGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.84.1.4 getListCountGender()

```
int[] metaheuristics.generators.MultiobjectiveTabuSearch.getListCountGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.84.1.5 getReference()

```
State metaheuristics.generators.MultiobjectiveTabuSearch.getReference ()
```

Reimplemented from metaheuristics.generators.Generator.

5.84.1.6 getReferenceList()

```
List< State > metaheuristics.generators.MultiobjectiveTabuSearch.getReferenceList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.84.1.7 getSonList()

```
List< State > metaheuristics.generators.MultiobjectiveTabuSearch.getSonList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.84.1.8 getTrace()

```
float[] metaheuristics.generators.MultiobjectiveTabuSearch.getTrace ()
```

Reimplemented from metaheuristics.generators.Generator.

5.84.1.9 getType()

```
GeneratorType metaheuristics.generators.MultiobjectiveTabuSearch.getType ()
```

Reimplemented from metaheuristics.generators.Generator.

5.84.1.10 getWeight()

```
float metaheuristics.generators.MultiobjectiveTabuSearch.getWeight ()
```

Reimplemented from metaheuristics.generators.Generator.

5.84.1.11 setInitialReference()

```
void metaheuristics.generators.MultiobjectiveTabuSearch.setInitialReference (
            State stateInitialRef)
```

Reimplemented from metaheuristics.generators.Generator.

5.84.1.12 setWeight()

```
void metaheuristics.generators.MultiobjectiveTabuSearch.setWeight (
            float weight)
```

Reimplemented from metaheuristics.generators.Generator.

5.84.1.13 updateReference()

```
void metaheuristics.generators.MultiobjectiveTabuSearch.updateReference (
            State stateCandidate,
            Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

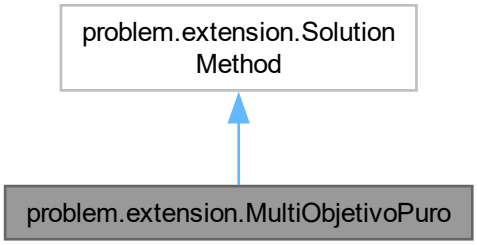
Reimplemented from metaheuristics.generators.Generator.

The documentation for this class was generated from the following file:

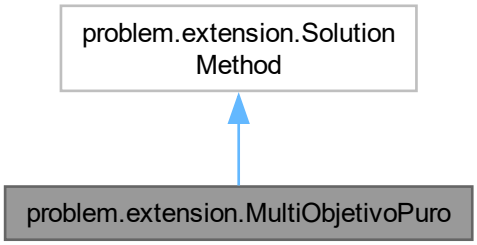
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/MultiobjectiveTabuSearch.java

5.85 problem.extension.MultiObjetivoPuro Class Reference

Inheritance diagram for problem.extension.MultiObjetivoPuro:



Collaboration diagram for problem.extension.MultiObjetivoPuro:



Public Member Functions

- void evaluationState (State state)

5.85.1 Member Function Documentation

5.85.1.1 evaluationState()

```
void problem.extension.MultiObjetivoPuro.evaluationState (
            State state)
```

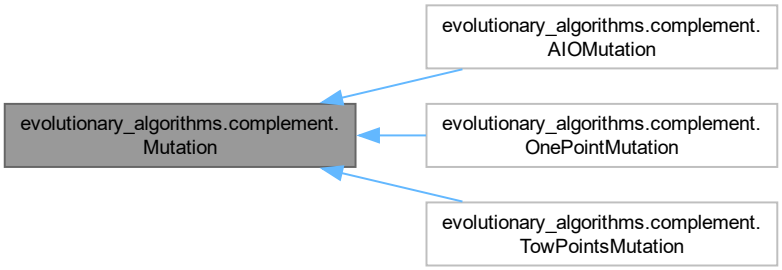
Reimplemented from problem.extension.SolutionMethod.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/problem/extension/MultiObjetivoPuro.java

5.86 evolutionary_algorithms.complement.Mutation Class Reference

Inheritance diagram for evolutionary_algorithms.complement.Mutation:



Public Member Functions

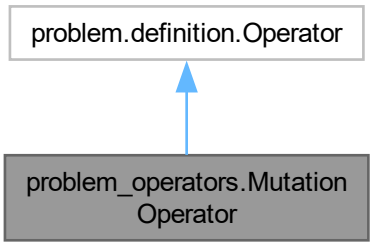
- abstract State **mutation** (State state, double PM)

The documentation for this class was generated from the following file:

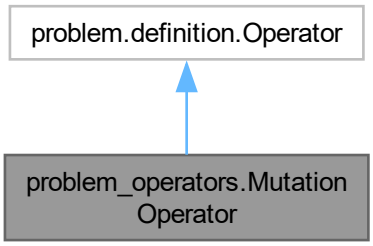
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/Mutation.java

5.87 problem_operators.MutationOperator Class Reference

Inheritance diagram for problem_operators.MutationOperator:



Collaboration diagram for problem_operators.MutationOperator:



Public Member Functions

- List< State > generatedNewState (State stateCurrent, Integer operatornumber)
- List< State > generateRandomState (Integer operatornumber)

5.87.1 Member Function Documentation

5.87.1.1 generatedNewState()

```
List< State > problem_operators.MutationOperator.generatedNewState (
            State stateCurrent,
            Integer operatornumber)
```

Reimplemented from problem.definition.Operator.

5.87.1.2 generateRandomState()

```
List< State > problem_operators.MutationOperator.generateRandomState (
            Integer operatornumber)
```

Reimplemented from problem.definition.Operator.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/problem_operators/MutationOperator.java

5.88 problem_operators.MutationOperatorTest Class Reference

Public Member Functions

- void **setUp** ()
- void **testGeneratedNewState** ()
- void **testGenerateRandomState** ()

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/problem_operators/MutationOperatorTest.java

5.89 evolutionary_algorithms.complement.MutationType Enum Reference

Public Attributes

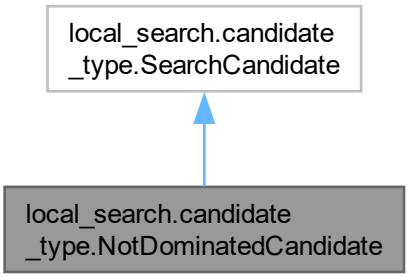
- **TowPointsMutation**
- **OnePointMutation**
- **AIOMutation**

The documentation for this enum was generated from the following file:

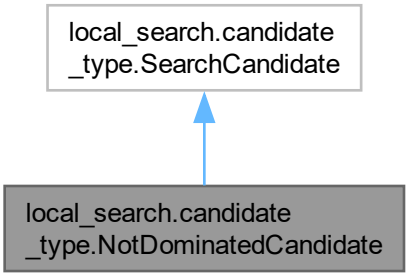
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/MutationType.java

5.90 local_search.candidate_type.NotDominatedCandidate Class Reference

Inheritance diagram for local_search.candidate_type.NotDominatedCandidate:



Collaboration diagram for local_search.candidate_type.NotDominatedCandidate:



Public Member Functions

- State candidate (State stateReference, List< State > neighborhood)

5.90.1 Member Function Documentation

5.90.1.1 candidate()

```
State local_search.candidate_type.NotDominatedCandidate.candidate (
            State stateReference,
            List< State > neighborhood)
```

Implements local_search.candidate_type.SearchCandidate.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/candidate_type/NotDominatedCandidate.java

5.91 problem.definition.ObjetiveFunction Class Reference

Public Member Functions

- float **getWeight** ()
- void **setWeight** (float weight)
- ProblemType **getTypeProblem** ()
- void **setTypeProblem** (ProblemType typeProblem)
- abstract Double **Evaluation** (State state)

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/problem/definition/ObjetiveFunction.java

5.92 problem.definition.ObjetiveFunctionTest Class Reference

Public Member Functions

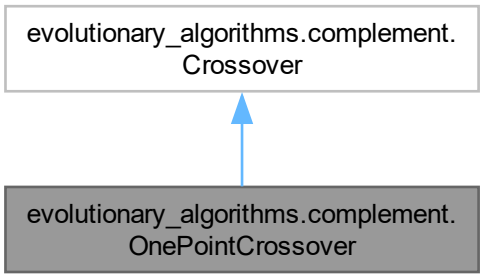
- void **testGettersAndSetters** ()

The documentation for this class was generated from the following file:

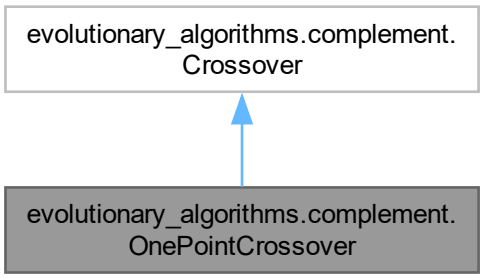
- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/problem/definition/ObjetiveFunctionTest.java

5.93 evolutionary_algorithms.complement.OnePointCrossover Class Reference

Inheritance diagram for evolutionary_algorithms.complement.OnePointCrossover:



Collaboration diagram for evolutionary_algorithms.complement.OnePointCrossover:



Public Member Functions

- State crossover (State father1, State father2, double PC)

5.93.1 Member Function Documentation

5.93.1.1 crossover()

```
State evolutionary_algorithms.complement.OnePointCrossover.crossover (
            State father1,
```

```
State father2,
double PC)
```

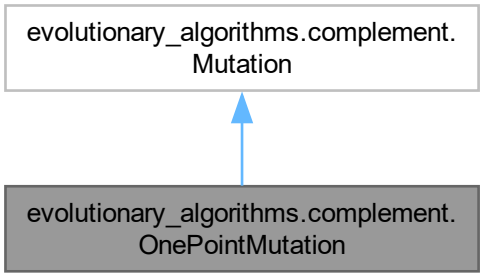
Reimplemented from evolutionary_algorithms.complement.Crossover.

The documentation for this class was generated from the following file:

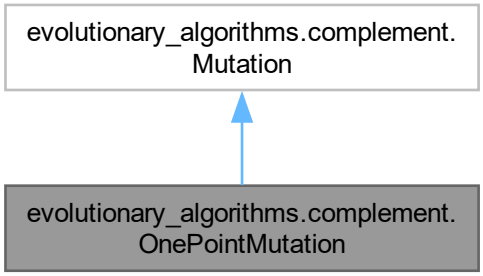
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/OnePointCrossover.java

5.94 evolutionary_algorithms.complement.OnePointMutation Class Reference

Inheritance diagram for evolutionary_algorithms.complement.OnePointMutation:



Collaboration diagram for evolutionary_algorithms.complement.OnePointMutation:



Public Member Functions

- State mutation (State state, double PM)

5.94.1 Member Function Documentation

5.94.1.1 mutation()

```
State evolutionary_algorithms.complement.OnePointMutation.mutation (
            State state,
            double PM)
```

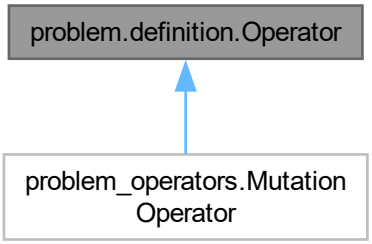
Reimplemented from evolutionary_algorithms.complement.Mutation.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/OnePointMutation.java

5.95 problem.definition.Operator Class Reference

Inheritance diagram for problem.definition.Operator:



Public Member Functions

- abstract List< State > **generatedNewState** (State stateCurrent, Integer operatornumber)
- abstract List< State > **generateRandomState** (Integer operatornumber)

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/problem/definition/Operator.java

5.96 problem.definition.OperatorTest Class Reference

Public Member Functions

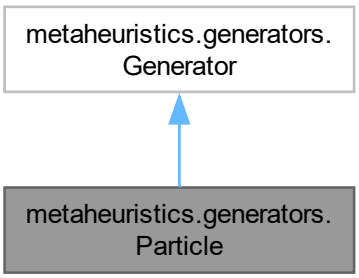
- void **testAbstractImplementation** ()

The documentation for this class was generated from the following file:

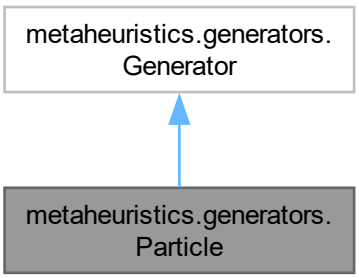
- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/problem/definition/OperatorTest.java

5.97 metaheuristics.generators.Particle Class Reference

Inheritance diagram for metaheuristics.generators.Particle:



Collaboration diagram for metaheuristics.generators.Particle:



Public Member Functions

- **Particle** (State statePBest, State stateActual, ArrayList< Object > velocity)
- ArrayList< Object > **getVelocity** ()
- void **setVelocity** (ArrayList< Object > velocity)
- State **getStatePBest** ()
- void **setStatePBest** (State statePBest)
- State **getStateActual** ()
- void **setStateActual** (State stateActual)
- State generate (Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩ NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException
- void updateReference (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException

- State getReference ()
- void setInitialReference (State stateInitialRef)
- GeneratorType getType ()
- List< State > getReferenceList ()
- List< State > getSonList ()
- boolean awardUpdateREF (State stateCandidate)
- void setWeight (float weight)
- float getWeight ()
- float[ ] getTrace ()
- int[ ] getListCountBetterGender ()
- int[ ] getListCountGender ()

Additional Inherited Members

Public Attributes inherited from metaheuristics.generators.Generator

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

5.97.1 Member Function Documentation

5.97.1.1 awardUpdateREF()

```
boolean metaheuristics.generators.Particle.awardUpdateREF (
            State stateCandidate)
```

Reimplemented from metaheuristics.generators.Generator.

5.97.1.2 generate()

```
State metaheuristics.generators.Particle.generate (
            Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩
NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException,
NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

5.97.1.3 getListCountBetterGender()

```
int[] metaheuristics.generators.Particle.getListCountBetterGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.97.1.4 getListCountGender()

```
int[] metaheuristics.generators.Particle.getListCountGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.97.1.5 getReference()

```
State metaheuristics.generators.Particle.getReference ()
```

Reimplemented from metaheuristics.generators.Generator.

5.97.1.6 getReferenceList()

```
List< State > metaheuristics.generators.Particle.getReferenceList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.97.1.7 getSonList()

```
List< State > metaheuristics.generators.Particle.getSonList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.97.1.8 getTrace()

```
float[] metaheuristics.generators.Particle.getTrace ()
```

Reimplemented from metaheuristics.generators.Generator.

5.97.1.9 getType()

```
GeneratorType metaheuristics.generators.Particle.getType ()
```

Reimplemented from metaheuristics.generators.Generator.

5.97.1.10 getWeight()

```
float metaheuristics.generators.Particle.getWeight ()
```

Reimplemented from metaheuristics.generators.Generator.

5.97.1.11 setInitialReference()

```
void metaheuristics.generators.Particle.setInitialReference (
            State stateInitialRef)
```

Reimplemented from metaheuristics.generators.Generator.

5.97.1.12 setWeight()

```
void metaheuristics.generators.Particle.setWeight (
            float weight)
```

Reimplemented from metaheuristics.generators.Generator.

5.97.1.13 updateReference()

```
void metaheuristics.generators.Particle.updateReference (
            State stateCandidate,
            Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

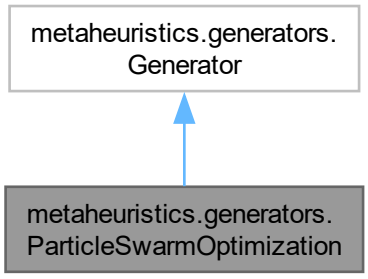
Reimplemented from metaheuristics.generators.Generator.

The documentation for this class was generated from the following file:

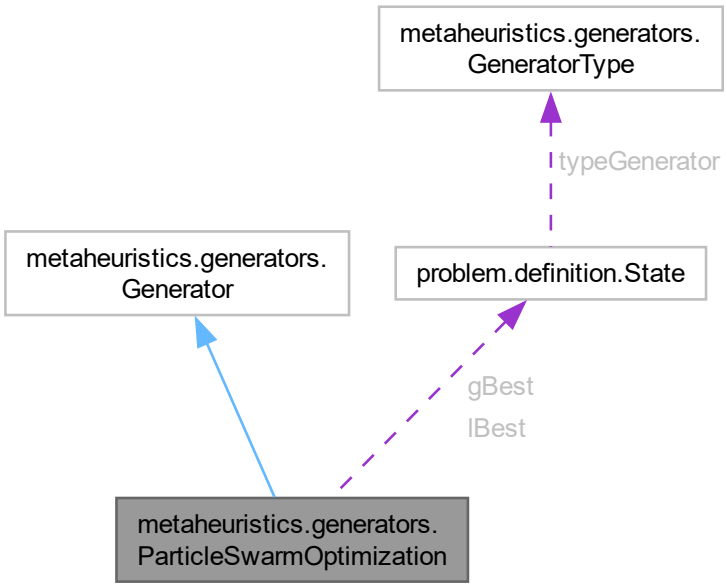
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/Particle.java

5.98 metaheuristics.generators.ParticleSwarmOptimization Class Reference

Inheritance diagram for metaheuristics.generators.ParticleSwarmOptimization:



Collaboration diagram for metaheuristics.generators.ParticleSwarmOptimization:



Public Member Functions

- State generate (Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩ NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException
- void **inicialiceLBest** ()
- State getReference ()
- State **getStateReferencePSO** ()
- void **setStateReferencePSO** (State stateReferencePSO)
- List< Particle > **getListStateReference** ()
- void **setListStateReference** (List< State > listStateReference)
- List< Particle > **getListParticle** ()
- List< Particle > **setListParticle** (List< Particle > listParticle)
- GeneratorType **getGeneratorType** ()
- void **setGeneratorType** (GeneratorType generatorType)
- void updateReference (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgument↩ Exception,SecurityException, ClassNotFoundException, InstantiationException,IllegalAccessException, InvocationTargetException,NoSuchMethodException
- State **gBestInicial** ()
- void setInitialReference (State stateInitialRef)
- GeneratorType getType ()
- List< State > getReferenceList ()
- List< State > getSonList ()
- boolean awardUpdateREF (State stateCandidate)
- void setWeight (float weight)
- float getWeight ()
- int[ ] getListCountBetterGender ()
- int[ ] getListCountGender ()
- float[ ] getTrace ()

Static Public Member Functions

- static int **getCountRef** ()
- static void **setCountRef** (int countRef)

Static Public Attributes

- static int **countRef** = 0
- static int **countParticle** = 0
- static int **coutSwarm** = 0
- static int **countParticleBySwarm** = 0
- static double **wmax** = 0.9
- static double **wmin** = 0.2
- static int **learning1** = 2
- static int **learning2** = 2
- static double **constriction**
- static boolean **binary** = false
- static State[ ] **lBest**
- static State **gBest**
- static int **countCurrentIterPSO**
- static int **countGender** = 0
- static int **countBetterGender** = 0

Additional Inherited Members

Public Attributes inherited from metaheuristics.generators.Generator

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

5.98.1 Member Function Documentation

5.98.1.1 awardUpdateREF()

```
boolean metaheuristics.generators.ParticleSwarmOptimization.awardUpdateREF (
            State stateCandidate)
```

Reimplemented from metaheuristics.generators.Generator.

5.98.1.2 generate()

```
State metaheuristics.generators.ParticleSwarmOptimization.generate (
            Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩
NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException,
NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

5.98.1.3 getListCountBetterGender()

```
int[] metaheuristics.generators.ParticleSwarmOptimization.getListCountBetterGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.98.1.4 getListCountGender()

```
int[] metaheuristics.generators.ParticleSwarmOptimization.getListCountGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.98.1.5 getReference()

```
State metaheuristics.generators.ParticleSwarmOptimization.getReference ()
```

Reimplemented from metaheuristics.generators.Generator.

5.98.1.6 getReferenceList()

```
List< State > metaheuristics.generators.ParticleSwarmOptimization.getReferenceList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.98.1.7 getSonList()

```
List< State > metaheuristics.generators.ParticleSwarmOptimization.getSonList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.98.1.8 getTrace()

```
float[] metaheuristics.generators.ParticleSwarmOptimization.getTrace ()
```

Reimplemented from metaheuristics.generators.Generator.

5.98.1.9 getType()

```
GeneratorType metaheuristics.generators.ParticleSwarmOptimization.getType ()
```

Reimplemented from metaheuristics.generators.Generator.

5.98.1.10 getWeight()

```
float metaheuristics.generators.ParticleSwarmOptimization.getWeight ()
```

Reimplemented from metaheuristics.generators.Generator.

5.98.1.11 setInitialReference()

```
void metaheuristics.generators.ParticleSwarmOptimization.setInitialReference (
            State stateInitialRef)
```

Reimplemented from metaheuristics.generators.Generator.

5.98.1.12 setWeight()

```
void metaheuristics.generators.ParticleSwarmOptimization.setWeight (
            float weight)
```

Reimplemented from metaheuristics.generators.Generator.

5.98.1.13 updateReference()

```
void metaheuristics.generators.ParticleSwarmOptimization.updateReference (
            State stateCandidate,
            Integer countIterationsCurrent) throws IllegalArgumentException,SecurityException,
ClassNotFoundException, InstantiationException,IllegalAccessException, InvocationTarget↩
Exception,NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/ParticleSwarmOptimization.java

5.99 metaheuristics.generators.ParticleSwarmOptimizationTest Class Reference

Public Member Functions

- void **setUp** () throws Exception
- void **tearDown** () throws Exception
- void **testGenerate** () throws Exception
- void **testGetType** ()
- void **testUpdateReference** () throws Exception
- void **testInicialiceLBest_Maximizar** ()
- void **testInicialiceLBest_Minimizar** ()
- void **testGetListStateRef_FromRandomSearch** () throws Exception
- void **testGBestInicial_Maximizar** ()
- void **testGBestInicial_Minimizar** ()
- void **testUpdateReference_Maximizar** () throws Exception

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/ParticleSwarmOptimizationTest.java

5.100 metaheuristics.generators.ParticleTest Class Reference

Public Member Functions

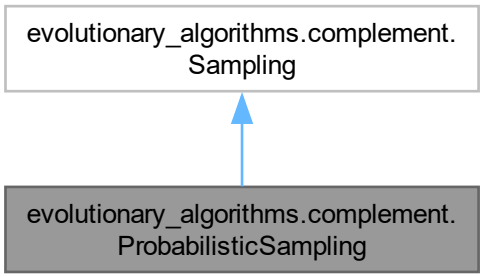
- void **setUp** ()
- void **testInitialization** ()
- void **testUpdateReference_Maximization_Improvement** () throws Exception
- void **testUpdateReference_Minimization_Improvement** () throws Exception
- void **testGenerate** () throws Exception

The documentation for this class was generated from the following file:

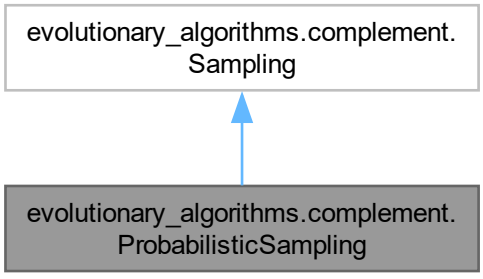
- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/ParticleTest.java

5.101 evolutionary_algorithms.complement.ProbabilisticSampling Class Reference

Inheritance diagram for evolutionary_algorithms.complement.ProbabilisticSampling:



Collaboration diagram for evolutionary_algorithms.complement.ProbabilisticSampling:



Public Member Functions

- List< State > sampling (List< State > fathers, int countInd)
- List< State > **listState** (int countInd)

5.101.1 Member Function Documentation

5.101.1.1 sampling()

```
List< State > evolutionary_algorithms.complement.ProbabilisticSampling.sampling (
            List< State > fathers,
            int countInd)
```

Reimplemented from evolutionary_algorithms.complement.Sampling.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/ProbabilisticSampling.java

5.102 evolutionary_algorithms.complement.Probability Class Reference

Public Member Functions

- **Probability** (Probability probability)
- **Probability** (Object key, Object value, float probability)
- float **getProbability** ()
- void **setProbability** (float probability)
- Object **getKey** ()
- void **setKey** (Object key)
- Object **getValue** ()
- void **setValue** (Object value)

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/Probability.java

5.103 problem.definition.Problem Class Reference

Classes

- enum ProblemType

Public Member Functions

- ArrayList< ObjetiveFunction > **getFunction** ()
- void **setFunction** (ArrayList< ObjetiveFunction > function)
- State **getState** ()
- void **setState** (State state)
- ProblemType **getTypeProblem** ()
- void **setTypeProblem** (ProblemType typeProblem)
- Codification **getCodification** ()
- void **setCodification** (Codification codification)
- Operator **getOperator** ()
- void **setOperator** (Operator operator)
- int **getPossibleValue** ()
- void **setPossibleValue** (int possibleValue)
- void **Evaluate** (State state) throws IllegalArgumentException, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- TypeSolutionMethod **getTypeSolutionMethod** ()
- void **setTypeSolutionMethod** (TypeSolutionMethod typeSolutionMethod)
- IFFactorySolutionMethod **getFactorySolutionMethod** ()
- void **setFactorySolutionMethod** (IFFactorySolutionMethod factorySolutionMethod)
- SolutionMethod **newSolutionMethod** (TypeSolutionMethod typeSolutionMethod) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/problem/definition/Problem.java

5.104 problem.definition.ProblemTest Class Reference

Public Member Functions

- void **setUp** ()
- void **testGettersAndSetters** ()
- void **testEvaluateWithoutSolutionMethod** () throws Exception
- void **testEvaluateWithSolutionMethod** () throws Exception

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/problem/definition/ProblemTest.java

5.105 problem.definition.Problem.ProblemType Enum Reference

Public Attributes

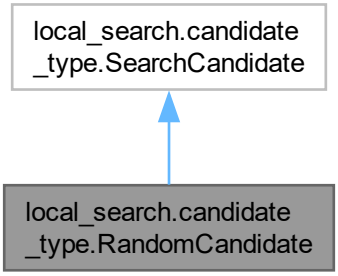
- **Maximizar**
- **Minimizar**

The documentation for this enum was generated from the following file:

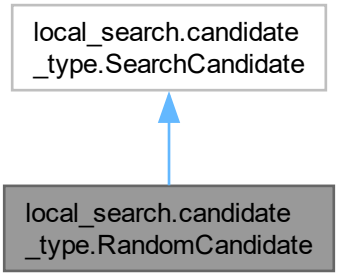
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/problem/definition/Problem.java

5.106 local_search.candidate_type.RandomCandidate Class Reference

Inheritance diagram for local_search.candidate_type.RandomCandidate:



Collaboration diagram for local_search.candidate_type.RandomCandidate:



Public Member Functions

- State candidate (State stateReference, List< State > neighborhood)

5.106.1 Member Function Documentation

5.106.1.1 candidate()

```
State local_search.candidate_type.RandomCandidate.candidate (
            State stateReference,
            List< State > neighborhood)
```

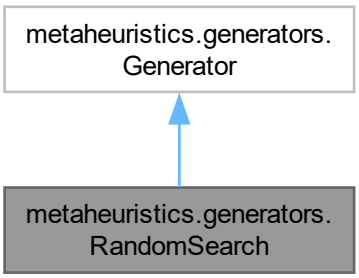
Implements local_search.candidate_type.SearchCandidate.

The documentation for this class was generated from the following file:

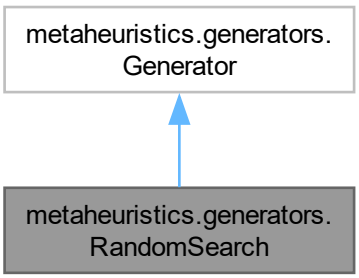
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/candidate_type/RandomCandidate.java

5.107 metaheuristics.generators.RandomSearch Class Reference

Inheritance diagram for metaheuristics.generators.RandomSearch:



Collaboration diagram for metaheuristics.generators.RandomSearch:



Public Member Functions

- State generate (Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩ NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException
- State getReference ()
- void setInitialReference (State stateInitialRef)
- void updateReference (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- GeneratorType getType ()
- GeneratorType **getTypeGenerator** ()
- void **setTypeGenerator** (GeneratorType typeGenerator)
- List< State > getReferenceList ()
- List< State > getSonList ()

- boolean awardUpdateREF (State stateCandidate)
- float getWeight ()
- void setWeight (float weight)
- int[ ] getListCountBetterGender ()
- int[ ] getListCountGender ()
- float[ ] getTrace ()

Static Public Attributes

- static List< State > **listStateReference** = new ArrayList<State>()
- static int **countGender** = 0
- static int **countBetterGender** = 0

Additional Inherited Members

Public Attributes inherited from metaheuristics.generators.Generator

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

5.107.1 Member Function Documentation

5.107.1.1 awardUpdateREF()

```
boolean metaheuristics.generators.RandomSearch.awardUpdateREF (
            State stateCandidate)
```

Reimplemented from metaheuristics.generators.Generator.

5.107.1.2 generate()

```
State metaheuristics.generators.RandomSearch.generate (
            Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩
NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException,
NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

5.107.1.3 getListCountBetterGender()

```
int[] metaheuristics.generators.RandomSearch.getListCountBetterGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.107.1.4 getListCountGender()

```
int[] metaheuristics.generators.RandomSearch.getListCountGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.107.1.5 getReference()

```
State metaheuristics.generators.RandomSearch.getReference ()
```

Reimplemented from metaheuristics.generators.Generator.

5.107.1.6 getReferenceList()

```
List< State > metaheuristics.generators.RandomSearch.getReferenceList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.107.1.7 getSonList()

```
List< State > metaheuristics.generators.RandomSearch.getSonList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.107.1.8 getTrace()

```
float[] metaheuristics.generators.RandomSearch.getTrace ()
```

Reimplemented from metaheuristics.generators.Generator.

5.107.1.9 getType()

```
GeneratorType metaheuristics.generators.RandomSearch.getType ()
```

Reimplemented from metaheuristics.generators.Generator.

5.107.1.10 getWeight()

```
float metaheuristics.generators.RandomSearch.getWeight ()
```

Reimplemented from metaheuristics.generators.Generator.

5.107.1.11 setInitialReference()

```
void metaheuristics.generators.RandomSearch.setInitialReference (
            State stateInitialRef)
```

Reimplemented from metaheuristics.generators.Generator.

5.107.1.12 setWeight()

```
void metaheuristics.generators.RandomSearch.setWeight (
            float weight)
```

Reimplemented from metaheuristics.generators.Generator.

5.107.1.13 updateReference()

```
void metaheuristics.generators.RandomSearch.updateReference (
            State stateCandidate,
            Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/RandomSearch.java

5.108 metaheuristics.generators.RandomSearchTest Class Reference

Public Member Functions

- void **setUp** ()
- void **testInitialization** ()
- void **testSetGetWeight** ()
- void **testGenerate** () throws Exception
- void **testUpdateReference** () throws Exception

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/RandomSearchTest.java

5.109 evolutionary_algorithms.complement.Range Class Reference

Public Member Functions

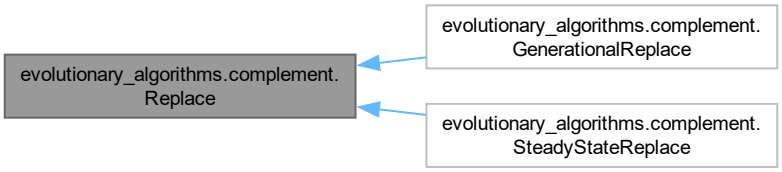
- Probability **getData** ()
- void **setData** (Probability data)
- float **getMax** ()
- void **setMax** (float max)
- float **getMin** ()
- void **setMin** (float min)

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/Range.java

5.110 evolutionary_algorithms.complement.Replace Class Reference

Inheritance diagram for evolutionary_algorithms.complement.Replace:



Public Member Functions

- abstract List< State > **replace** (State stateCandidate, List< State >listState) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/Replace.java

5.111 evolutionary_algorithms.complement.ReplaceType Enum Reference

Public Attributes

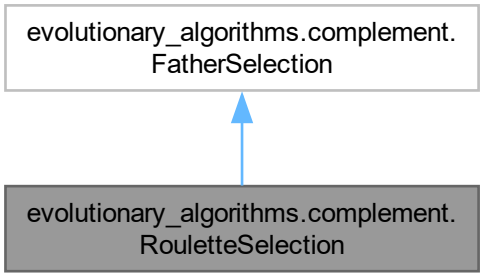
- **SteadyStateReplace**
- **GenerationalReplace**

The documentation for this enum was generated from the following file:

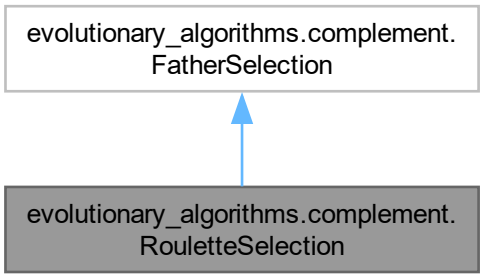
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/ReplaceType.java

5.112 evolutionary_algorithms.complement.RouletteSelection Class Reference

Inheritance diagram for evolutionary_algorithms.complement.RouletteSelection:



Collaboration diagram for evolutionary_algorithms.complement.RouletteSelection:



Public Member Functions

- List< State > selection (List< State > listState, int truncation)

5.112.1 Member Function Documentation

5.112.1.1 selection()

```
List< State > evolutionary_algorithms.complement.RouletteSelection.selection (
            List< State > listState,
            int truncation)
```

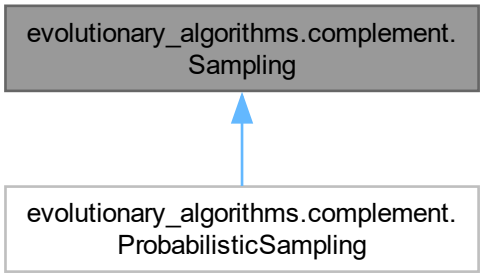
Reimplemented from evolutionary_algorithms.complement.FatherSelection.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/RouletteSelection.java

5.113 evolutionary_algorithms.complement.Sampling Class Reference

Inheritance diagram for evolutionary_algorithms.complement.Sampling:



Public Member Functions

- abstract List< State > **sampling** (List< State > fathers, int countInd)

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/Sampling.java

5.114 evolutionary_algorithms.complement.SamplingType Enum Reference

Public Attributes

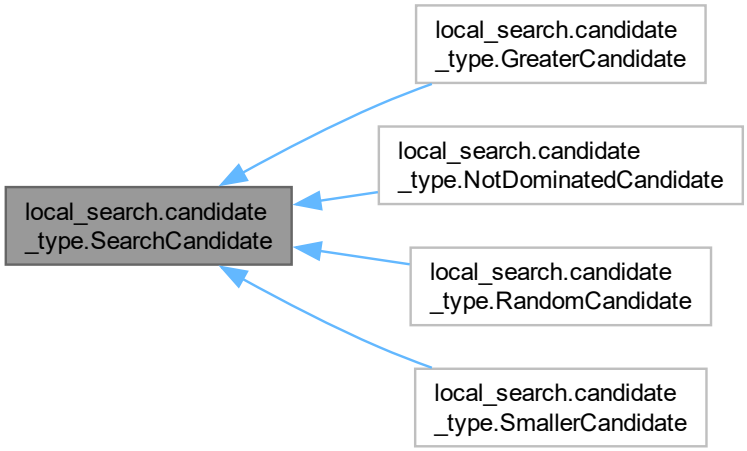
- **ProbabilisticSampling**

The documentation for this enum was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/SamplingType.java

5.115 local_search.candidate_type.SearchCandidate Interface Reference

Inheritance diagram for local_search.candidate_type.SearchCandidate:



Public Member Functions

- State **candidate** (State stateReference, List< State > neighborhood)

The documentation for this interface was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/candidate_type/SearchCandidate.java

5.116 evolutionary_algorithms.complement.SelectionType Enum Reference

Public Attributes

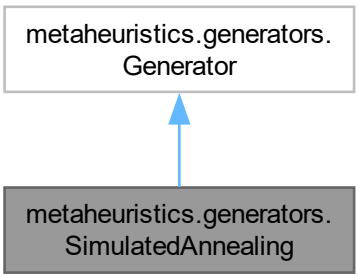
- **RouletteSelection**
- **TruncationSelection**

The documentation for this enum was generated from the following file:

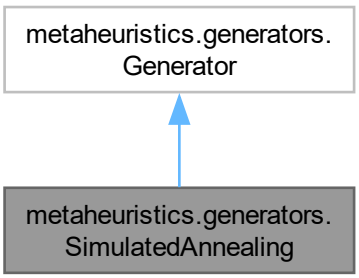
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/SelectionType.java

5.117 metaheuristics.generators.SimulatedAnnealing Class Reference

Inheritance diagram for metaheuristics.generators.SimulatedAnnealing:



Collaboration diagram for metaheuristics.generators.SimulatedAnnealing:



Public Member Functions

- GeneratorType **getTypeGenerator** ()
- void **setTypeGenerator** (GeneratorType typeGenerator)
- State generate (Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩ NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException
- State getReference ()
- void **setStateRef** (State stateRef)
- void setInitialReference (State stateInitialRef)
- void updateReference (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- GeneratorType getType ()
- List< State > getReferenceList ()

- List< State > getSonList ()
- boolean awardUpdateREF (State stateCandidate)
- float getWeight ()
- void setWeight (float weight)
- int[ ] getListCountBetterGender ()
- int[ ] getListCountGender ()
- float[ ] getTrace ()

Static Public Attributes

- static Double **alpha**
- static Double **tinitial**
- static Double **tfinal**
- static int **countIterationsT**
- static int **countGender** = 0
- static int **countBetterGender** = 0

Additional Inherited Members

Public Attributes inherited from metaheuristics.generators.Generator

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

5.117.1 Member Function Documentation

5.117.1.1 awardUpdateREF()

```
boolean metaheuristics.generators.SimulatedAnnealing.awardUpdateREF (
            State stateCandidate)
```

Reimplemented from metaheuristics.generators.Generator.

5.117.1.2 generate()

```
State metaheuristics.generators.SimulatedAnnealing.generate (
            Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩
NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException,
NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

5.117.1.3 getListCountBetterGender()

```
int[] metaheuristics.generators.SimulatedAnnealing.getListCountBetterGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.117.1.4 getListCountGender()

```
int[] metaheuristics.generators.SimulatedAnnealing.getListCountGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.117.1.5 getReference()

```
State metaheuristics.generators.SimulatedAnnealing.getReference ()
```

Reimplemented from metaheuristics.generators.Generator.

5.117.1.6 getReferenceList()

```
List< State > metaheuristics.generators.SimulatedAnnealing.getReferenceList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.117.1.7 getSonList()

```
List< State > metaheuristics.generators.SimulatedAnnealing.getSonList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.117.1.8 getTrace()

```
float[] metaheuristics.generators.SimulatedAnnealing.getTrace ()
```

Reimplemented from metaheuristics.generators.Generator.

5.117.1.9 getType()

```
GeneratorType metaheuristics.generators.SimulatedAnnealing.getType ()
```

Reimplemented from metaheuristics.generators.Generator.

5.117.1.10 getWeight()

```
float metaheuristics.generators.SimulatedAnnealing.getWeight ()
```

Reimplemented from metaheuristics.generators.Generator.

5.117.1.11 setInitialReference()

```
void metaheuristics.generators.SimulatedAnnealing.setInitialReference (
            State stateInitialRef)
```

Reimplemented from metaheuristics.generators.Generator.

5.117.1.12 setWeight()

```
void metaheuristics.generators.SimulatedAnnealing.setWeight (
            float weight)
```

Reimplemented from metaheuristics.generators.Generator.

5.117.1.13 updateReference()

```
void metaheuristics.generators.SimulatedAnnealing.updateReference (
            State stateCandidate,
            Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/SimulatedAnnealing.java

5.118 metaheuristics.generators.SimulatedAnnealingTest Class Reference

Public Member Functions

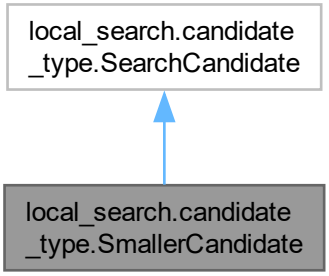
- void **setUp** ()
- void **testInitialization** ()
- void **testGenerate** () throws Exception
- void **testUpdateReference_Accept** () throws Exception
- void **testGetReferenceList** ()
- void **testUpdateReference_CoolingSchedule** () throws Exception

The documentation for this class was generated from the following file:

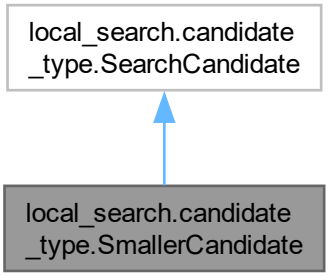
- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/SimulatedAnnealingTest.java

5.119 local_search.candidate_type.SmallerCandidate Class Reference

Inheritance diagram for local_search.candidate_type.SmallerCandidate:



Collaboration diagram for local_search.candidate_type.SmallerCandidate:



Public Member Functions

- State candidate (State stateReference, List< State > neighborhood)

5.119.1 Member Function Documentation

5.119.1.1 candidate()

```
State local_search.candidate_type.SmallerCandidate.candidate (
            State stateReference,
            List< State > neighborhood)
```

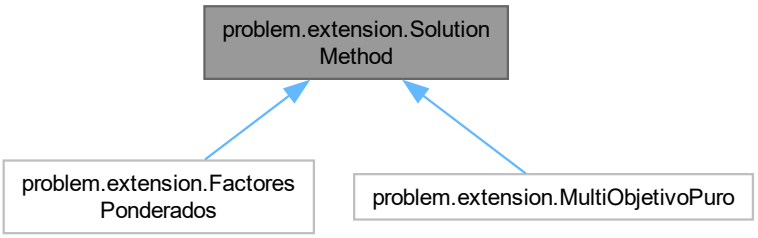
Implements local_search.candidate_type.SearchCandidate.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/candidate_type/SmallerCandidate.java

5.120 problem.extension.SolutionMethod Class Reference

Inheritance diagram for problem.extension.SolutionMethod:



Public Member Functions

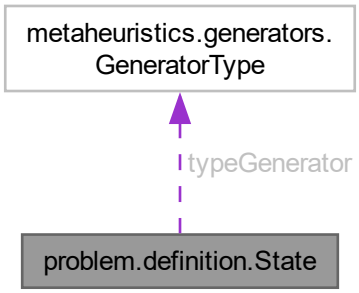
- abstract void **evaluationState** (State state)

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/problem/extension/SolutionMethod.java

5.121 problem.definition.State Class Reference

Collaboration diagram for problem.definition.State:



Public Member Functions

- **State** (State ps)
- **State** (ArrayList< Object > code)
- ArrayList< Object > **getCode** ()
- void **setCode** (ArrayList< Object > listCode)
- GeneratorType **getTypeGenerator** ()
- void **setTypeGenerator** (GeneratorType typeGenerator)
- ArrayList< Double > **getEvaluation** ()
- void **setEvaluation** (ArrayList< Double > evaluation)
- int **getNumber** ()
- void **setNumber** (int number)
- State **clone** ()
- Object **getCopy** ()
- boolean **Comparator** (State state)
- double **Distance** (State state)

Protected Attributes

- GeneratorType **typeGenerator**
- ArrayList< Double > **evaluation**
- int **number**
- ArrayList< Object > **code**

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/problem/definition/State.java

5.122 problem.definition.StateTest Class Reference

Public Member Functions

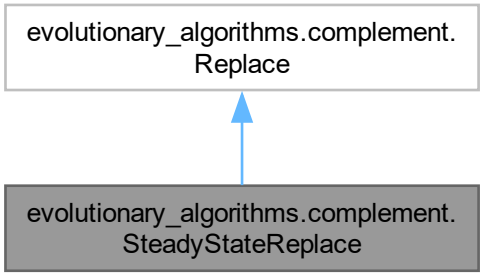
- void **testStateInitialization** ()
- void **testSettersAndGetters** ()
- void **testDistance** ()
- void **testComparator** ()
- void **testCloneAndCopy** ()

The documentation for this class was generated from the following file:

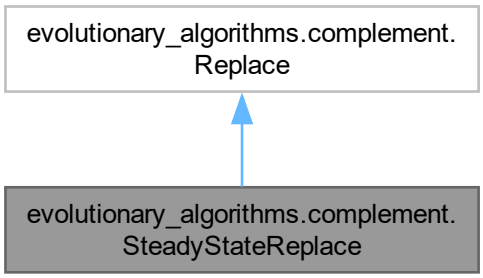
- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/problem/definition/StateTest.java

5.123 evolutionary_algorithms.complement.SteadyStateReplace Class Reference

Inheritance diagram for evolutionary_algorithms.complement.SteadyStateReplace:



Collaboration diagram for evolutionary_algorithms.complement.SteadyStateReplace:



Public Member Functions

- List< State > replace (State stateCandidate, List< State > listState)
- State **MinValue** (List< State > listState)
- State **MaxValue** (List< State > listState)

5.123.1 Member Function Documentation

5.123.1.1 replace()

```
List< State > evolutionary_algorithms.complement.SteadyStateReplace.replace (
            State stateCandidate,
            List< State > listState)
```

Reimplemented from evolutionary_algorithms.complement.Replace.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/SteadyStateReplace.java

5.124 local_search.complement.StopExecute Interface Reference

Public Member Functions

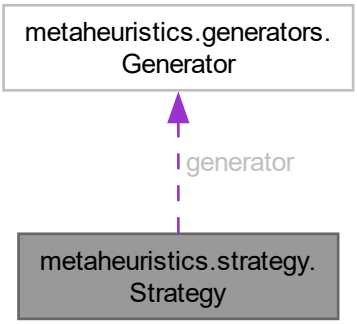
- boolean **stopIterations** (int current, int max)

The documentation for this interface was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/complement/StopExecute.java

5.125 metaheuristics.strategy.Strategy Class Reference

Collaboration diagram for metaheuristics.strategy.Strategy:



Public Member Functions

- Problem **getProblem** ()
- void **setProblem** (Problem problem)
- int **getCountMax** ()
- void **setCountMax** (int countMax)
- int **getCountCurrent** ()
- void **setCountCurrent** (int countCurrent)
- List< String > **getListKey** ()
- void **setListKey** (List< String > listKey)
- State **getBestState** ()

Static Public Member Functions

- static Strategy **getStrategy** ()
- static void **reset** ()

Public Attributes

- List< State > **listRefPoblacFinal** = new ArrayList<>()
- List< State > **listBest** = new ArrayList<>()
- Map< GeneratorType, Generator > **mapGenerators** = new HashMap<>()
- Generator **generator**
- List< State > **listStates**

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/strategy/Strategy.java

5.126 metaheuristics.strategy.StrategyTest Class Reference

Public Member Functions

- void **setUp** ()
- void **testSingleton** ()
- void **testGetSetProblem** ()
- void **testGetSetCountMax** ()
- void **testGetSetCountCurrent** ()
- void **testGetSetListKey** ()
- void **testListsInitialization** ()
- void **testGetBestState** ()
- void **testPublicFields** ()

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/strategy/StrategyTest.java

5.127 local_search.complement.StrategyType Enum Reference

Public Attributes

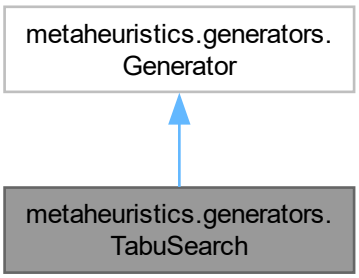
- **NORMAL**
- **TABU**

The documentation for this enum was generated from the following file:

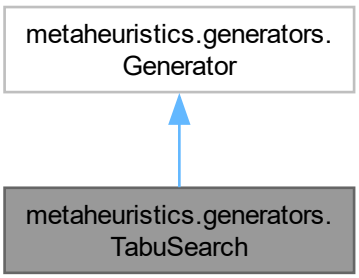
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/complement/StrategyType.java

5.128 metaheuristics.generators.TabuSearch Class Reference

Inheritance diagram for metaheuristics.generators.TabuSearch:



Collaboration diagram for metaheuristics.generators.TabuSearch:



Public Member Functions

- GeneratorType **getTypeGenerator** ()
- void **setTypeGenerator** (GeneratorType typeGenerator)
- State generate (Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩ NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuch↩ MethodException
- State getReference ()
- void setInitialReference (State stateInitialRef)
- void **setStateRef** (State stateRef)
- void updateReference (State stateCandidate, Integer countIterationsCurrent) throws IllegalArgument↩ Exception, SecurityException, ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException, NoSuchMethodException
- GeneratorType getType ()
- List< State > getReferenceList ()

- List< State > getSonList ()
- void **setTypeCandidate** (CandidateType typeCandidate)
- boolean awardUpdateREF (State stateCandidate)
- float getWeight ()
- void setWeight (float weight)
- int[ ] getListCountBetterGender ()
- int[ ] getListCountGender ()
- float[ ] getTrace ()

Static Public Attributes

- static int **countGender** = 0
- static int **countBetterGender** = 0

Additional Inherited Members

Public Attributes inherited from metaheuristics.generators.Generator

- int **countGender**
- int **countBetterGender**
- int[ ] **listCountBetterGender**

5.128.1 Member Function Documentation

5.128.1.1 awardUpdateREF()

```
boolean metaheuristics.generators.TabuSearch.awardUpdateREF (
            State stateCandidate)
```

Reimplemented from metaheuristics.generators.Generator.

5.128.1.2 generate()

```
State metaheuristics.generators.TabuSearch.generate (
            Integer operatornumber) throws IllegalArgumentException, SecurityException, Class↩
NotFoundException, InstantiationException, IllegalAccessException, InvocationTargetException,
NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

5.128.1.3 getListCountBetterGender()

```
int[] metaheuristics.generators.TabuSearch.getListCountBetterGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.128.1.4 getListCountGender()

```
int[] metaheuristics.generators.TabuSearch.getListCountGender ()
```

Reimplemented from metaheuristics.generators.Generator.

5.128.1.5 getReference()

```
State metaheuristics.generators.TabuSearch.getReference ()
```

Reimplemented from metaheuristics.generators.Generator.

5.128.1.6 getReferenceList()

```
List< State > metaheuristics.generators.TabuSearch.getReferenceList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.128.1.7 getSonList()

```
List< State > metaheuristics.generators.TabuSearch.getSonList ()
```

Reimplemented from metaheuristics.generators.Generator.

5.128.1.8 getTrace()

```
float[] metaheuristics.generators.TabuSearch.getTrace ()
```

Reimplemented from metaheuristics.generators.Generator.

5.128.1.9 getType()

```
GeneratorType metaheuristics.generators.TabuSearch.getType ()
```

Reimplemented from metaheuristics.generators.Generator.

5.128.1.10 getWeight()

```
float metaheuristics.generators.TabuSearch.getWeight ()
```

Reimplemented from metaheuristics.generators.Generator.

5.128.1.11 setInitialReference()

```
void metaheuristics.generators.TabuSearch.setInitialReference (
            State stateInitialRef)
```

Reimplemented from metaheuristics.generators.Generator.

5.128.1.12 setWeight()

```
void metaheuristics.generators.TabuSearch.setWeight (
            float weight)
```

Reimplemented from metaheuristics.generators.Generator.

5.128.1.13 updateReference()

```
void metaheuristics.generators.TabuSearch.updateReference (
            State stateCandidate,
            Integer countIterationsCurrent) throws IllegalArgumentException, SecurityException,
ClassNotFoundException, InstantiationException, IllegalAccessException, InvocationTarget↩
Exception, NoSuchMethodException
```

Reimplemented from metaheuristics.generators.Generator.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/metaheuristics/generators/TabuSearch.java

5.129 metaheuristics.generators.TabuSearchTest Class Reference

Public Member Functions

- void **setUp** () throws Exception
- void **tearDown** () throws Exception
- void **testSetAndGetReference** ()
- void **testGetType** ()
- void **testUpdateReference** () throws Exception
- void **testUpdateReference_TabuLogic_Add** () throws Exception
- void **testUpdateReference_TabuLogic_Full** () throws Exception
- void **testGetReferenceList** ()
- void **testSetStateRef** ()
- void **testSetGeneratorType** ()
- void **testSetTypeCandidate** ()
- void **testGettersAndSetters** ()
- void **testUpdateReference_TabuLogic_Duplicate** () throws Exception
- void **testUpdateReference_StrategyNotTabu** () throws Exception
- void **testUpdateReference_NotAccepted** () throws Exception
- void **testUpdateReference_TabuLogic_Full_Duplicate** () throws Exception

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/test/java/metaheuristics/generators/TabuSearchTest.java

5.130 local_search.complement.TabuSolutions Class Reference

Public Member Functions

- List< State > **filterNeighbor** (List< State > listNeighborhood) throws Exception

Static Public Attributes

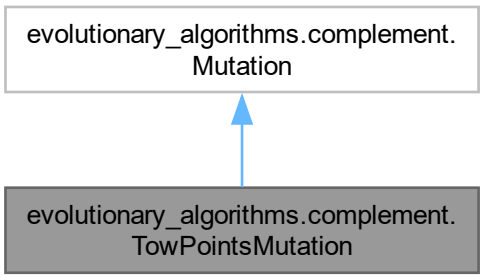
- static List< State > **listTabu** = new ArrayList<>()
- static int **maxelements** = 10

The documentation for this class was generated from the following file:

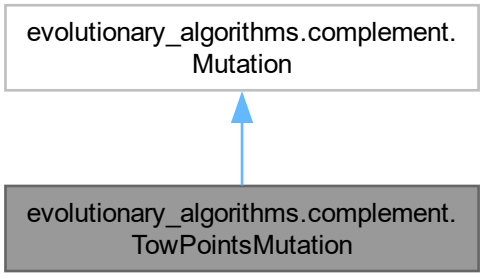
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/complement/TabuSolutions.java

5.131 evolutionary_algorithms.complement.TowPointsMutation Class Reference

Inheritance diagram for evolutionary_algorithms.complement.TowPointsMutation:



Collaboration diagram for evolutionary_algorithms.complement.TowPointsMutation:



Public Member Functions

- State mutation (State newind, double PM)

5.131.1 Member Function Documentation

5.131.1.1 mutation()

```
State evolutionary_algorithms.complement.TowPointsMutation.mutation (
            State newind,
            double PM)
```

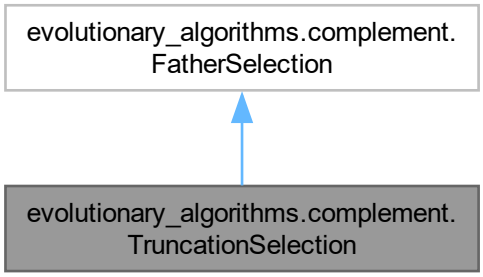
Reimplemented from evolutionary_algorithms.complement.Mutation.

The documentation for this class was generated from the following file:

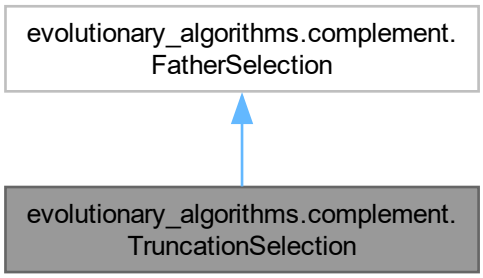
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/TowPointsMutation.java

5.132 evolutionary_algorithms.complement.TruncationSelection Class Reference

Inheritance diagram for evolutionary_algorithms.complement.TruncationSelection:



Collaboration diagram for evolutionary_algorithms.complement.TruncationSelection:



Public Member Functions

- List< State > **OrderBetter** (List< State > listState)
- List< State > **ascOrderBetter** (List< State > listState)
- List< State > selection (List< State > listState, int truncation)

5.132.1 Member Function Documentation

5.132.1.1 selection()

```
List< State > evolutionary_algorithms.complement.TruncationSelection.selection (
            List< State > listState,
            int truncation)
```

Reimplemented from evolutionary_algorithms.complement.FatherSelection.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/TruncationSelection.java

5.133 config.tspDynamic.TSPState Class Reference

Public Member Functions

- int **getValue** ()
- void **setValue** (int value)
- int **getIdCity** ()
- void **setIdCity** (int idCity)

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/resources/config/tspDynamic/TSPState.java

5.134 problem.extension.TypeSolutionMethod Enum Reference

Public Attributes

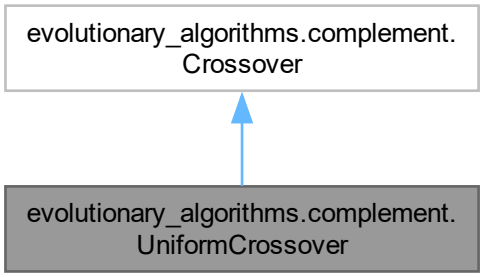
- **FactoresPonderados**
- **MultiObjetivoPuro**

The documentation for this enum was generated from the following file:

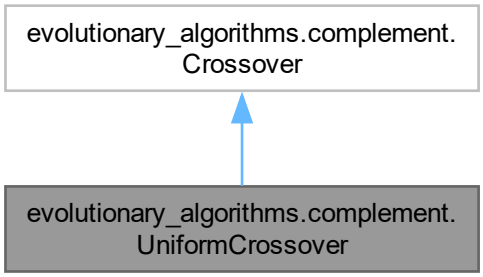
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/problem/extension/TypeSolutionMethod.java

5.135 evolutionary_algorithms.complement.UniformCrossover Class Reference

Inheritance diagram for evolutionary_algorithms.complement.UniformCrossover:



Collaboration diagram for evolutionary_algorithms.complement.UniformCrossover:



Public Member Functions

- int[ ] **mascara** (int length)
- State crossover (State father1, State father2, double PC)

5.135.1 Member Function Documentation

5.135.1.1 crossover()

```
State evolutionary_algorithms.complement.UniformCrossover.crossover (
            State father1,
            State father2,
            double PC)
```

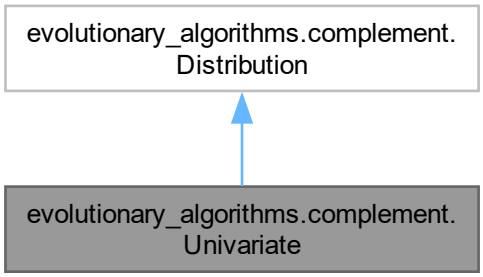
Reimplemented from evolutionary_algorithms.complement.Crossover.

The documentation for this class was generated from the following file:

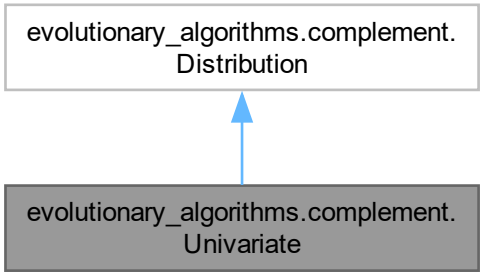
- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/UniformCrossover.java

5.136 evolutionary_algorithms.complement.Univariate Class Reference

Inheritance diagram for evolutionary_algorithms.complement.Univariate:



Collaboration diagram for evolutionary_algorithms.complement.Univariate:



Public Member Functions

- List< Probability > distribution (List< State > fathers)
- List< String > **getListKey** (SortedMap< String, Object > map)

5.136.1 Member Function Documentation

5.136.1.1 distribution()

```
List< Probability > evolutionary_algorithms.complement.Univariate.distribution (
            List< State > fathers)
```

Reimplemented from evolutionary_algorithms.complement.Distribution.

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/evolutionary_algorithms/complement/Univariate.java

5.137 local_search.complement.UpdateParameter Class Reference

Static Public Member Functions

- static Integer **updateParameter** (Integer parameter)

The documentation for this class was generated from the following file:

- C:/IntelliJPro/uni/LB/BiCIAM/src/main/java/local_search/complement/UpdateParameter.java

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