```
multiscale::analysis::Detector
# avgClusterednessDegree
# avgDensity
# image
# outputFilepath
# debugMode
# outputImage
# detectMethodCalled
# detectorSpecificFieldsInitialised
# origin
#OUTPUT_CLUSTEREDNESS
#OUTPUT DENSITY
# ERR_OUTPUT_WITHOUT_DETECT
# ERR_OUTPUT_FILE
# ERR_INVALID_IMAGE
#CSV EXTENSION
# IMG_EXTENSION
# XML_EXTENSION
# WIN OUTPUT IMAGE
# KEY_ESC
                and 23 more...
+ Detector()
+ ~Detector()
+ detect()
+ outputResults()
# initialise()
# initialiseDetectorSpecificFieldsIfNotSet()
# setDetectorSpecificFieldsInitialisationFlag()
# initialiseDetectorSpecificFields()
# initialiseImageDependentFields()
# initialiseDetectorSpecificImageDependentFields()
# initialiseImageOrigin()
# isValidInputImage()
# getDetectorTypeAsString()
# detect()
                 and 31 more...
                       Δ
      multiscale::analysis::ClusterDetector
      # entityPileupDegree
      # eps
      # minPoints
      # clusters
      - DETECTOR_TYPE
      - TRACKBAR_EPS
```

```
TRACKBAR_MINPOINTS
MIN_POINTS_MIN
MIN_POINTS_MAX
- EPS_MIN
- EPS_MAX
- EPS_REAL_MIN
- EPS_REAL_MAX
+ ClusterDetector()
+ ~ClusterDetector()
+ getEps()
+ getMinPoints()
+ getClusters()
+ setEps()
+ setMinPoints()
# initialiseDetectorSpecificFields()
# createDetectorSpecificTrackbars()
# clearPreviousDetectionResults()
# getDetectorTypeAsString()
# processImageAndDetect()
# detectEntitiesInImage()
# detectAndAnalyseClusters()
# detectClusters()
# convertEntities()
# convertNonPiledUpEntities()
          and 10 more...
                Δ
```

multiscale::analysis::SimulationClusterDetector - thresholdedImage

- height
- width
- entityHeight
- entityWidth
- THRESHOLD
- THRESHOLD_MAX
- ENTITY_THRESH
- DATAPOINT_WIDTH
- DATAPOINT_THICKNESS
- + SimulationClusterDetector()
- + ~SimulationClusterDetector()
- -initial is e Detector Specific Image Dependent Fields ()
- initialiseThresholdedImage()
- detectEntitiesInImage()
- isEntityAtPosition()
- getEntityCentrePoint() - getEntityContourPoints()
- computePileUpDegreeAtPosition()
- outputResultsToImage() - outputClusterToImage()
- outputClusterShape()
- outputClusterTriangularShape() - outputClusterRectangularShape()
- outputClusterCircularShape()