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
KEY_SAVE
LABEL_ATTRIBUTE
LABEL_COMMENT
LABEL_COMMENT_CONTENTS
LABEL_EXPERIMENT_TIMEPOINT_NUMERIC_STATE_VARIABLE
LABEL_EXPERIMENT_TIMEPOINT_SPATIAL_ENTITY
LABEL_EXPERIMENT_TIMEPOINT_NUMERIC_STATE_VARIABLE_NAME
LABEL_EXPERIMENT_TIMEPOINT_NUMERIC_STATE_VARIABLE_VALUE
LABEL_SPATIAL_ENTITY_PSEUDO_3D
LABEL_SPATIAL_ENTITY_TYPE
LABEL_SPATIAL_ENTITY_CLUSTEREDNESS
LABEL_SPATIAL_ENTITY_DENSITY
LABEL_SPATIAL_ENTITY_AREA
LABEL_SPATIAL_ENTITY_PERIMETER
LABEL_SPATIAL_ENTITY_DISTANCE_FROM_ORIGIN
LABEL_SPATIAL_ENTITY_ANGLE
LABEL_SPATIAL_ENTITY_SHAPE
LABEL_SPATIAL_ENTITY_TRIANGLE_MEASURE
LABEL_SPATIAL_ENTITY_RECTANGLE_MEASURE
LABEL_SPATIAL_ENTITY_CIRCLE_MEASURE
LABEL_SPATIAL_ENTITY_CENTROID_X
LABEL_SPATIAL_ENTITY_CENTROID_Y
LABEL_AVG_CLUSTEREDNESS
LABEL_AVG_DENSITY

+ Detector()
+ ~Detector()
+ detect()
+ outputResults()
# initialise()
# initialiseDetectorSpecificFieldsIfNotSet()
# setDetectorSpecificFieldsInitialisationFlag()
# initialiseDetectorSpecificFields()
# initialiseImageDependentFields()
# initialiseDetectorSpecificImageDependentFields()
# initialiseImageOrigin()
# isValidInputImage()
# getDetectorTypeAsString()
# detect()
# detectInDebugMode()
# detectInReleaseMode()
# polygonAngle()
# polygonAngle()
# minAreaRectCentre()
# findGoodPointsForAngle()
# findGoodIntersectionPoints()
# displayResultsInWindow()
# outputResultsToFile()
# outputResultsToImage()
# storeOutputImageOnDisk()
# outputResultsToCsvFile()
# outputResultsToCsvFile()
# outputSpatialEntitiesToCsvFile()
# outputAveragedMeasuresToCsvFile()
# outputResultsToXMLFile()
# outputResultsToXMLFile()
# addSpatialEntitiesToPropertyTree()
# addAverageMeasuresToPropertyTree()
# addNumericStateVariableToPropertyTree()
# constructPropertyTree()
# addSpatialEntityPropertiesToTree()
# addSpatialEntityTypeToPropertyTree()
# getCollectionOfSpatialEntityPseudo3D()
# processImageAndDetect()
# clearPreviousDetectionResults()
# createTrackbars()
# createTrackbarsWindow()
# createDetectorSpecificTrackbars()
# processPressedKeyRequest()
# displayImage()
# printOutputErrorMessage()

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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()
# convertPiledUpEntities()
# addEntitiesToClusters()
# analyseClusters()
# analyseClustersOriginDependentValues()
# updateClusterOriginDependentValues()
# getClusterConvexHull()
# computeClusterednessIndex()
# computeAveragePileUpDegree()
# getCollectionOfSpatialEntityPseudo3D()
# convertEpsValue()
# getValidMinPointsValue()

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multiscale::analysis::SimulationClusterDetector

- thresholdedImage
- height
- width
- entityHeight
- entityWidth
- THRESHOLD
- THRESHOLD_MAX
- ENTITY_THRESH
- DATAPOINT_WIDTH
- DATAPOINT_THICKNESS

+ SimulationClusterDetector()
+ ~SimulationClusterDetector()
- initialiseDetectorSpecificImageDependentFields()
- initialiseThresholdedImage()
- detectEntitiesInImage()
- isEntityAtPosition()
- getEntityCentrePoint()
- getEntityContourPoints()
- computePileUpDegreeAtPosition()
- outputResultsToImage()
- outputClusterToImage()
- outputClusterShape()
- outputClusterTriangularShape()
- outputClusterRectangularShape()
- outputClusterCircularShape()