

voronoi

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voronoiShapefile	<i>Create a shapefile/spatialPoints of the Voronoi diagram of given points.</i>
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Description

Create a shapefile/spatialPoints of the Voronoi diagram of given points.

Usage

```
voronoiShapefile(lon, lat, shp)
```

Arguments

lon	A vector of longitudes
lat	A vector of latitudes
shp	A SpatialPolygonsDataFrame surrounding where the points lie.

Value

Returns a SpatialPolygons of the voronoi diagram of the points, intersected with the given shapefile.

Examples

```
# Get a shapefile of US States:
file <- "http://www2.census.gov/geo/tiger/GENZ2015/shp/cb_2015_us_state_20m.zip"
download.file(file, "states.zip")
unzip("states.zip")
shp <- rgdal::readOGR(".", "cb_2015_us_state_20m")
shp <- shp[shp@data$STATEFP != "02", ]
shp <- shp[shp@data$STATEFP != "15", ]
shp <- shp[shp@data$STATEFP != "72", ]
shp <- sp::spTransform(shp, sp::CRS("+init=epsg:26978"))
crds <- sp::coordinates(shp)
voronoi <- voronoiShapefile(crds[, 1], crds[, 2], shp = shp)
plot(voronoi)
```

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