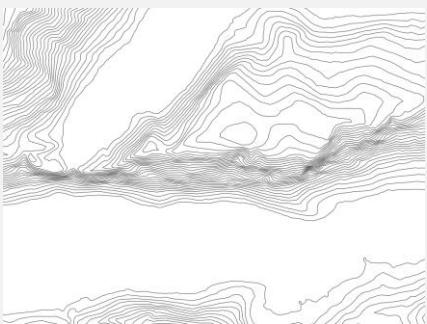
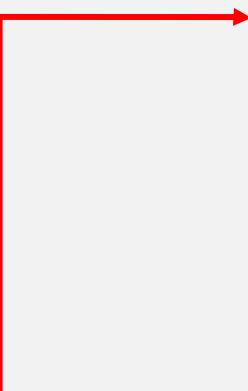


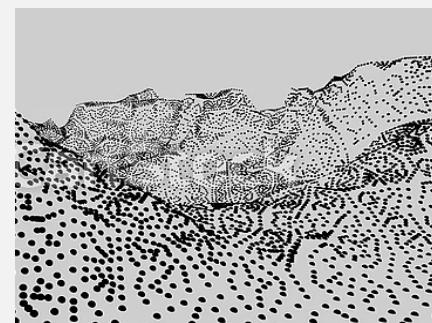
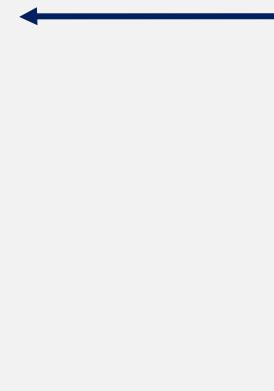
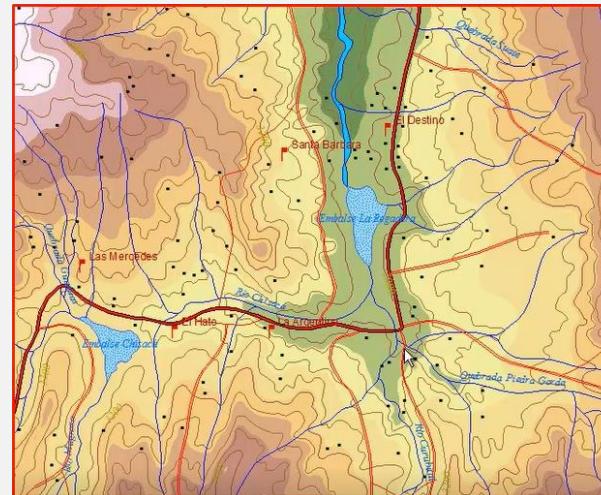
ALGUNOS CONCEPTOS EN ANÁLISIS DE SUPERFICIE Y MODELAMIENTO ESPACIAL

Profesor Rodolfo Franco
<http://mixdyr.wordpress.com/>

OBTENCIÓN DE UNA SUPERFICIE



Desde Curvas de Nivel

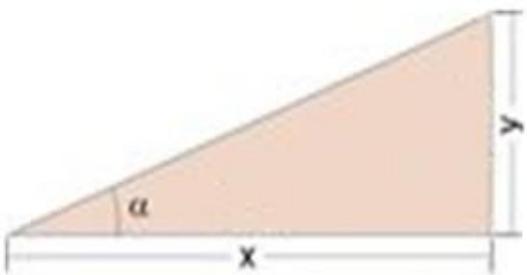


Desde nube de puntos



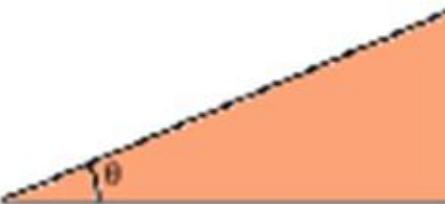
Desde un DEM descargado

PENDIENTES



$$\text{Percentage} = \frac{y}{x} \times 100$$

$$\text{Angle } (\alpha) = \tan^{-1} \left(\frac{y}{x} \right)$$



Degree of slope = 30

Percent of slope = 58



45

100



76

375

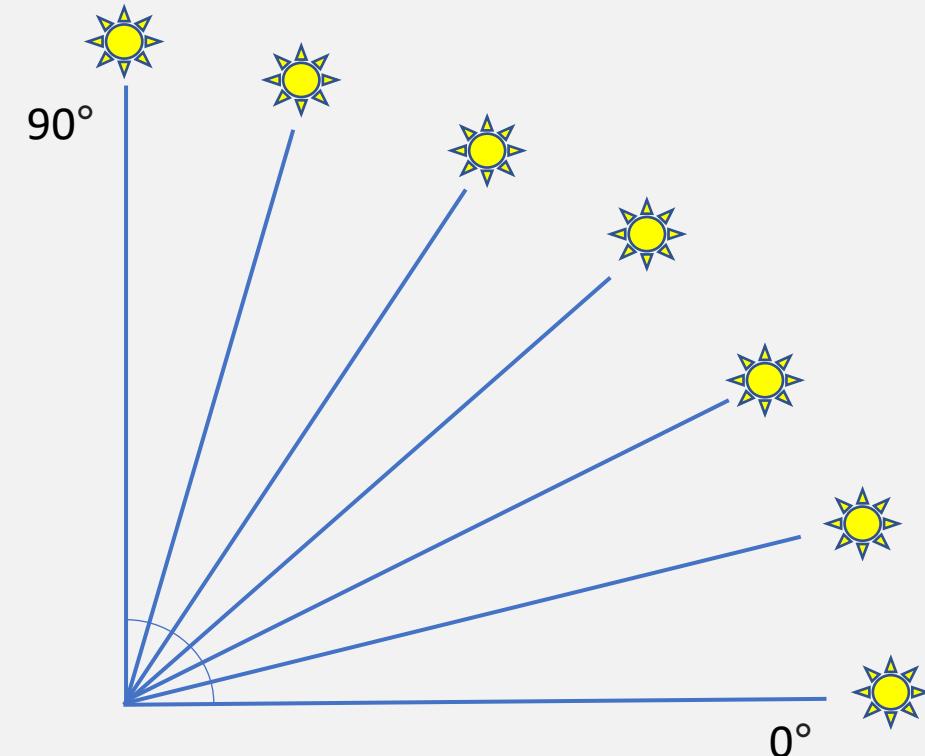
ANÁLISIS DE ASPECTO



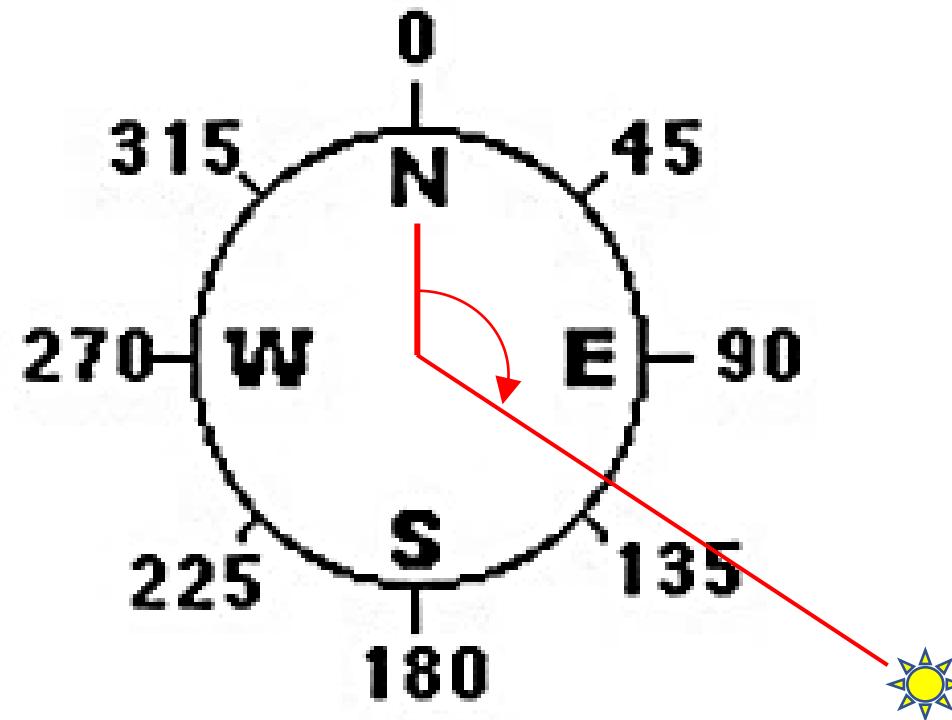
ANÁLISIS HILLSHADE



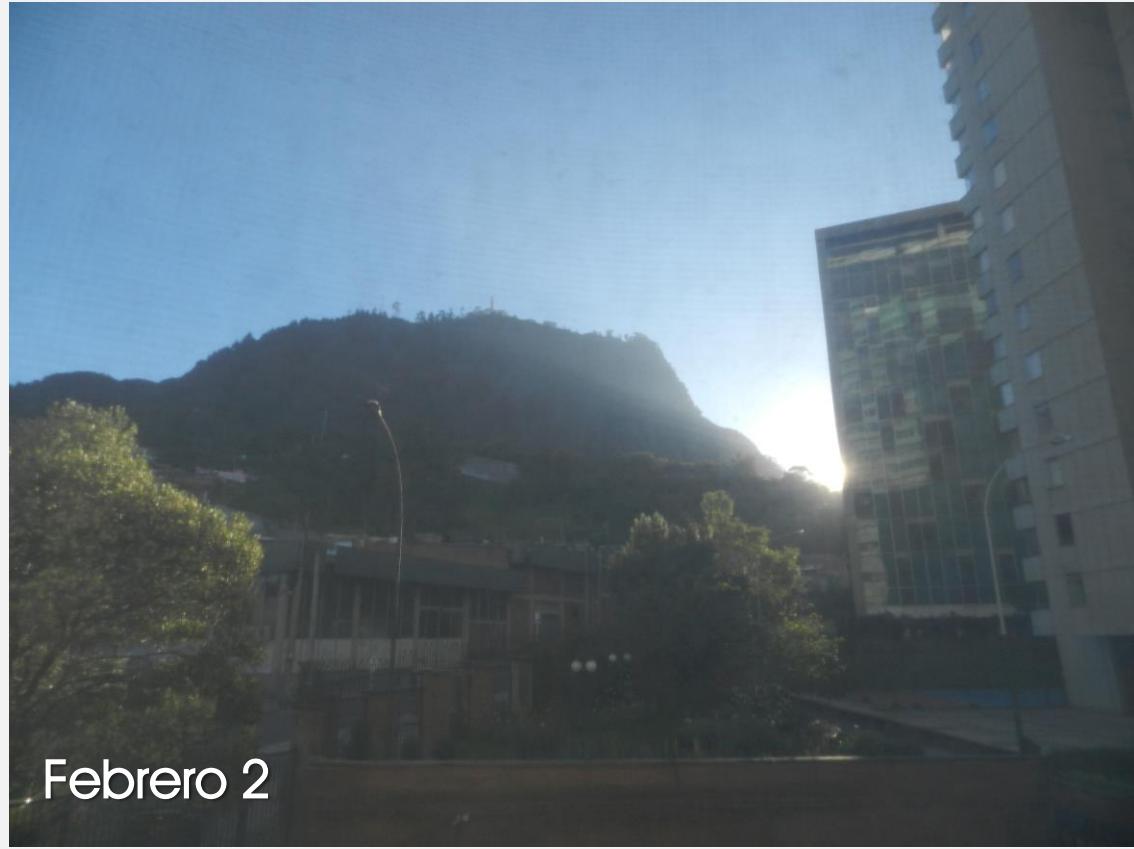
ELEVACIÓN



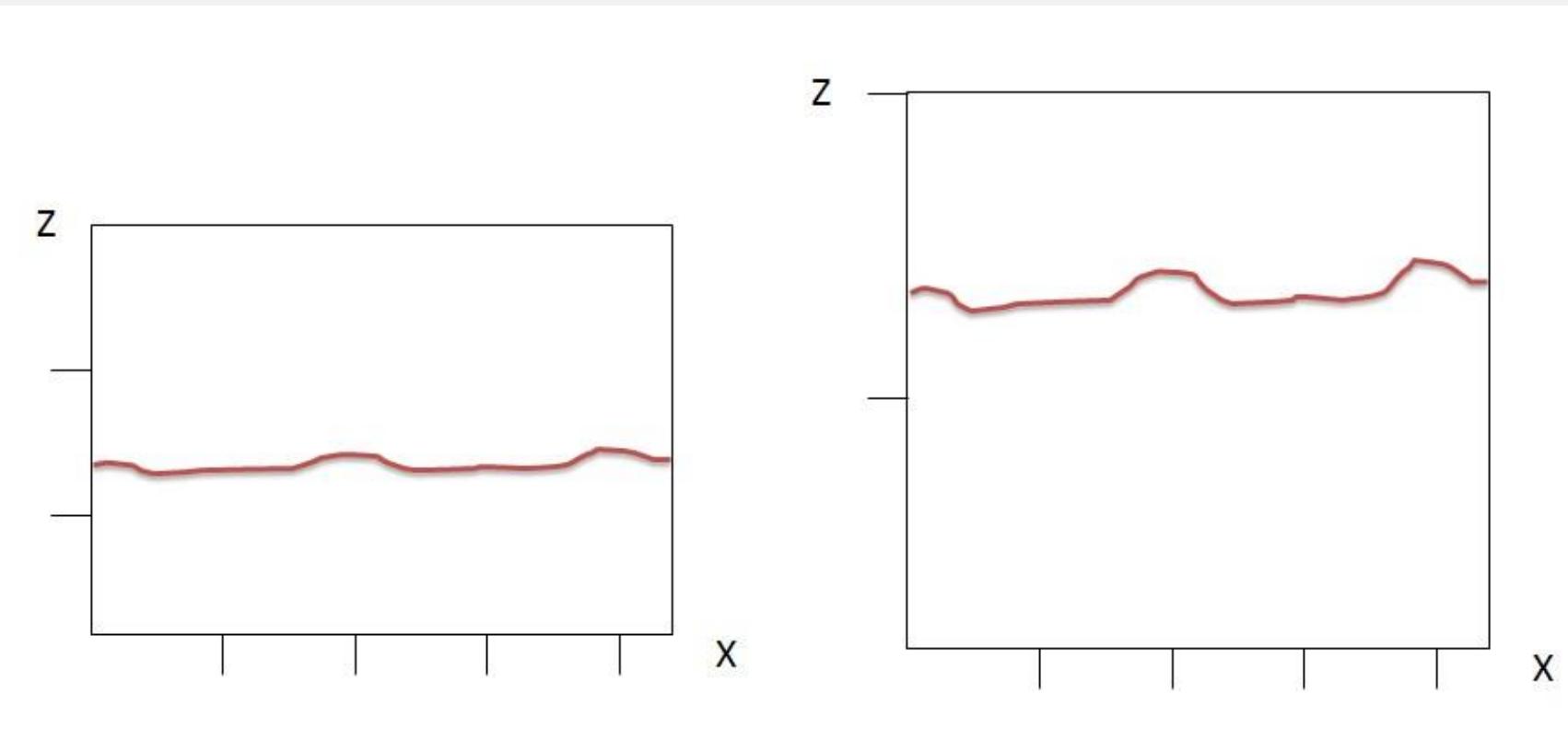
AZIMUT







EXAGERACIÓN VERTICAL



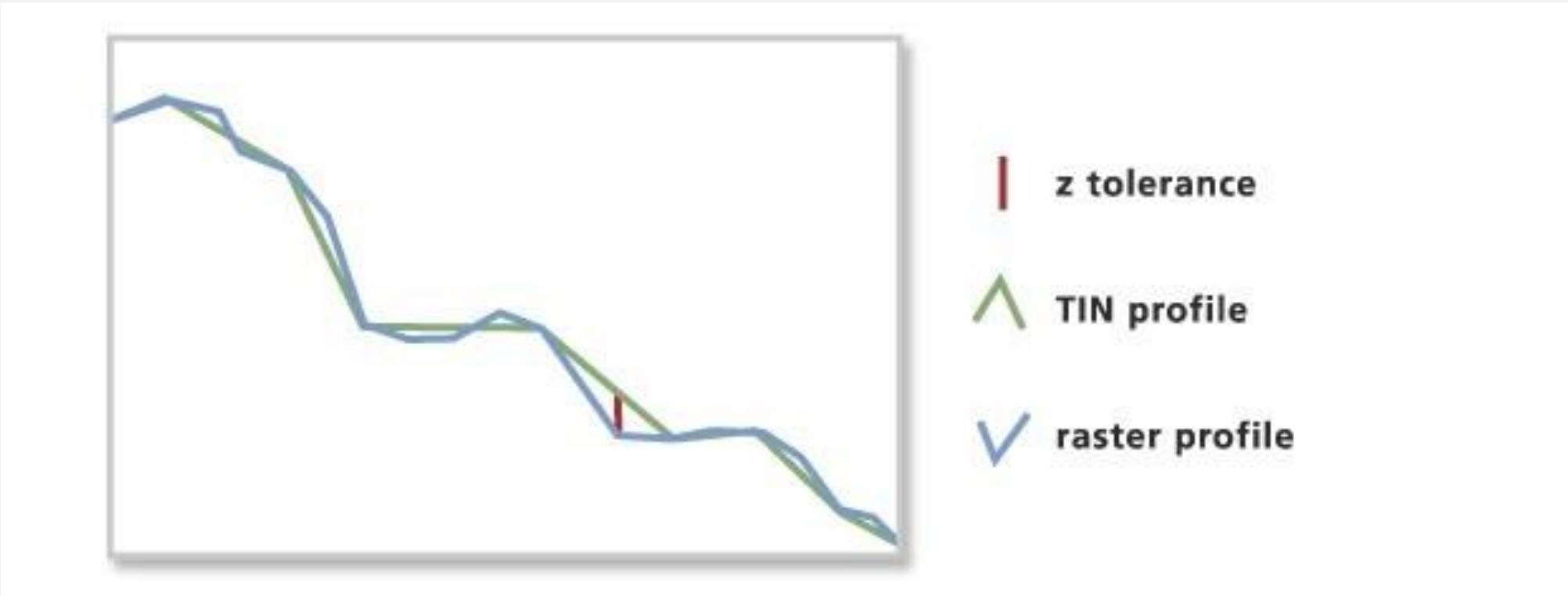
$Z=1$

Igual dimensión de la unidad
en eje vertical respecto a eje
horizontal

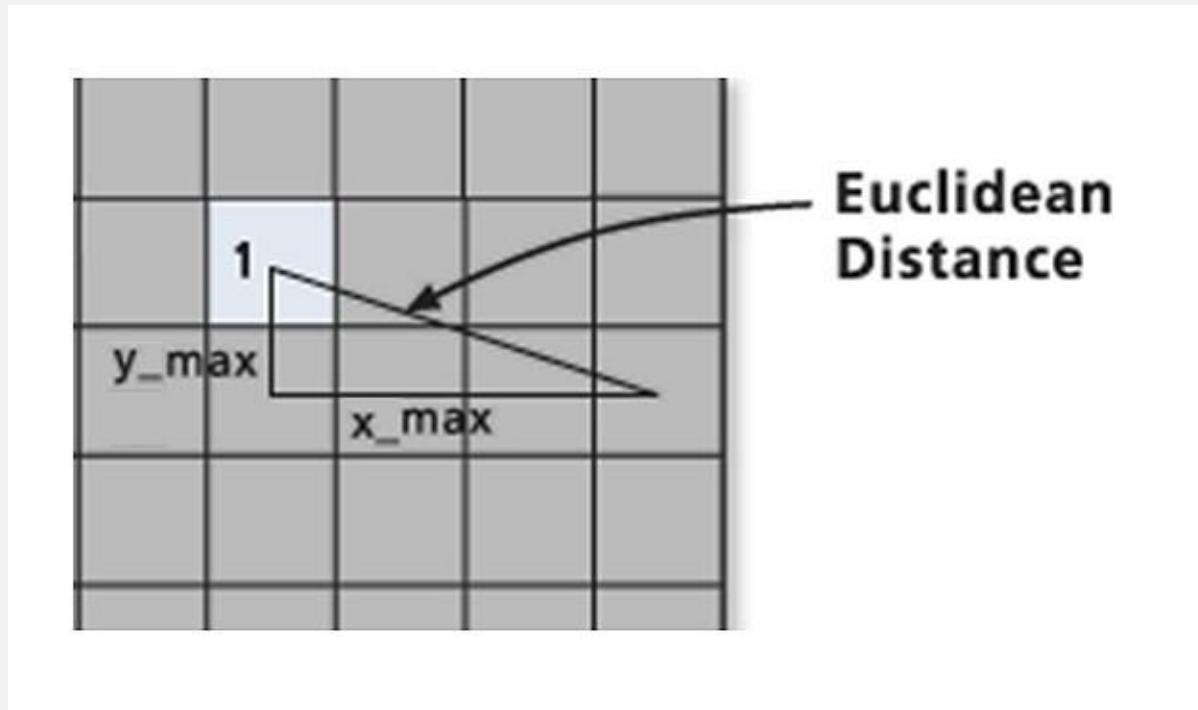
$Z=2$

La unidad en eje vertical
duplica a la unidad en
horizontal

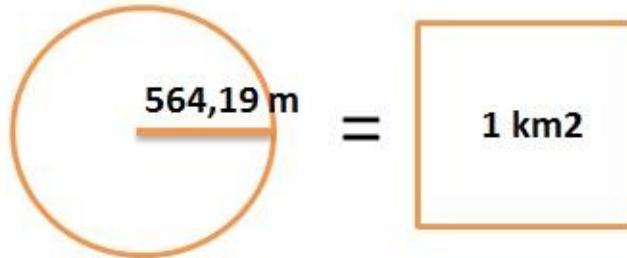
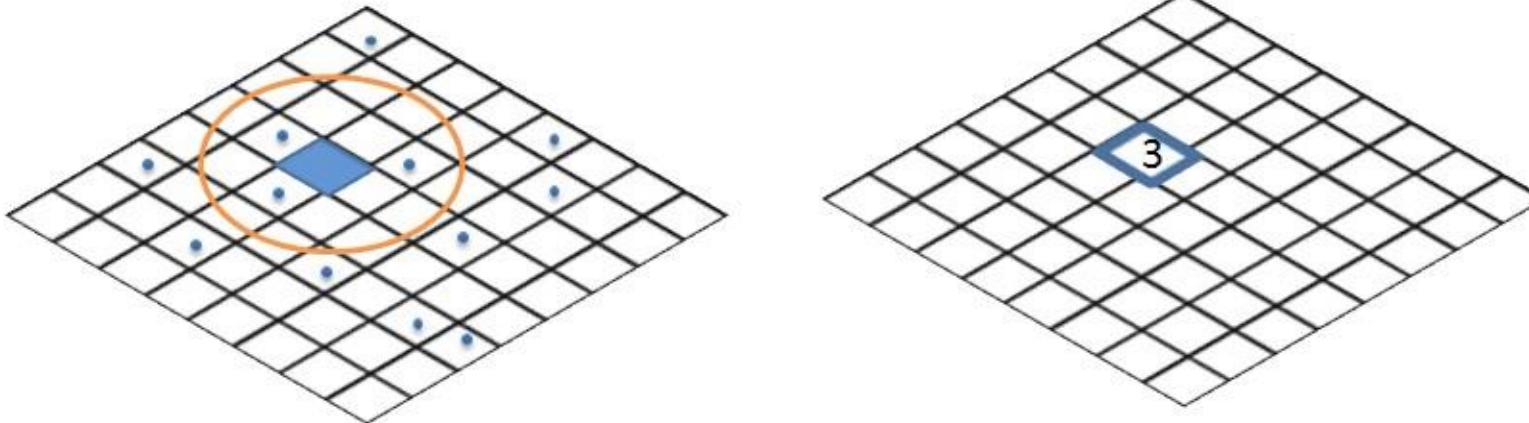
TOLERANCIA EN Z



ANÁLISIS DE DISTANCIAS



ANÁLISIS DE DENSIDAD



$$A = \pi r^2 \quad r = \sqrt{\frac{1}{\pi}}$$

$$r = 0,5641895 \text{ km}$$

ANÁLISIS DE DENSIDAD



Simple



Kernel

RECLASIFICACIÓN

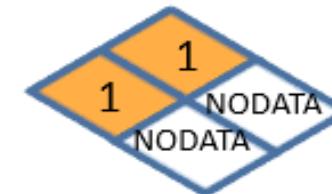
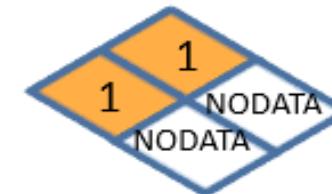
Revaloración de celdas raster de acuerdo a un criterio.

Ejemplo:

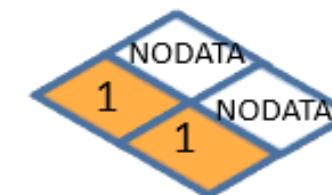
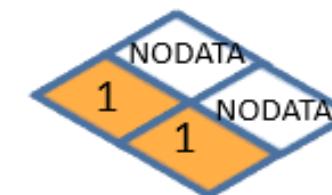
Valores óptimos = 1 , Otros valores = 0 u Otros Valores = NODATA (celdas anuladas)

Óptimos:

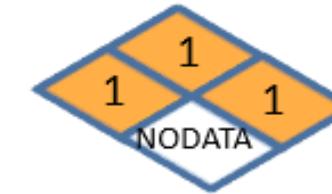
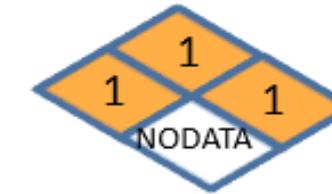
Capacidad de Suelo: tipo A



Distancia a drenajes: $\geq 30m$

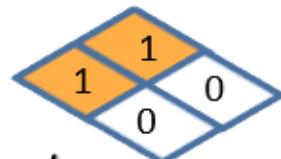


Pendiente: $<12\%$

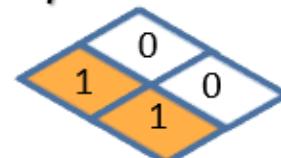


ÁLGEBRA DE MAPAS

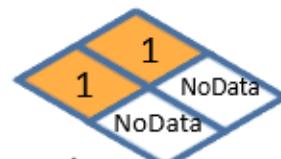
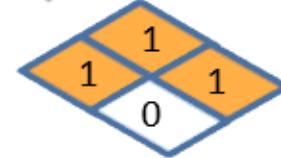
Operación matemática entre celdas de capas ráster



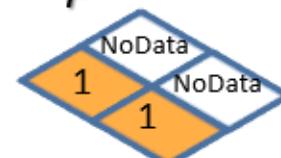
+



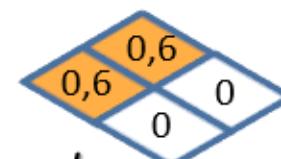
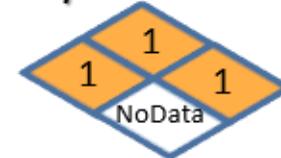
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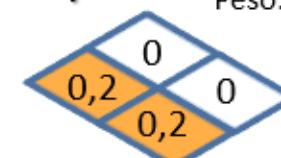
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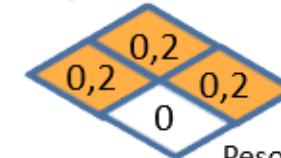
+



+



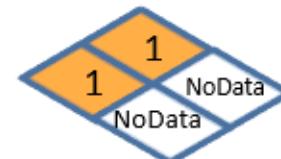
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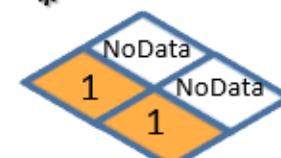
Peso: 60%

Peso: 20%

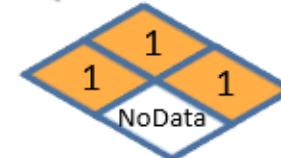
Peso: 20%

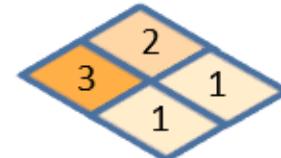


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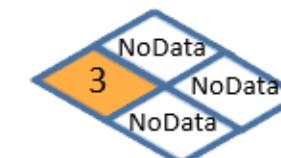


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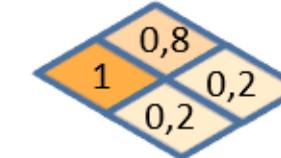




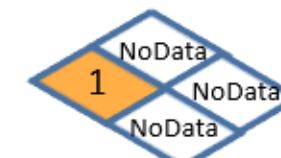
Suma



Suma que
incluye nulos

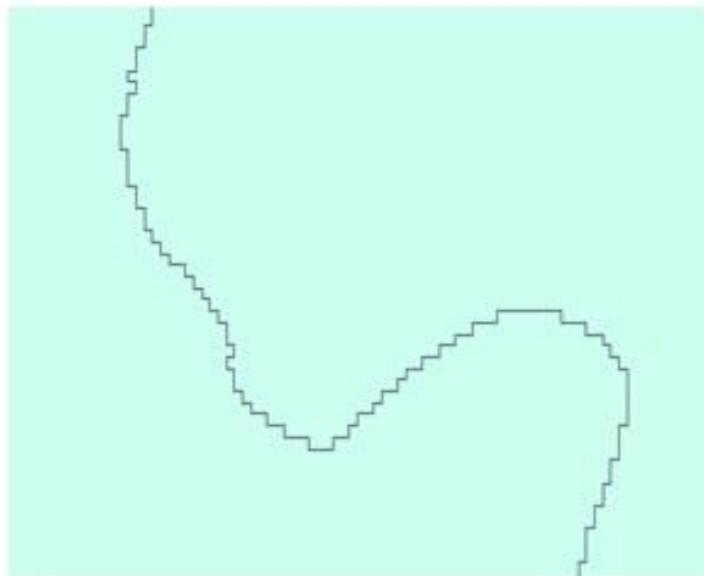


Suma
ponderada



Multiplicación

SIMPLIFICAR



Sin simplificar



Simplificada