

# Fractais

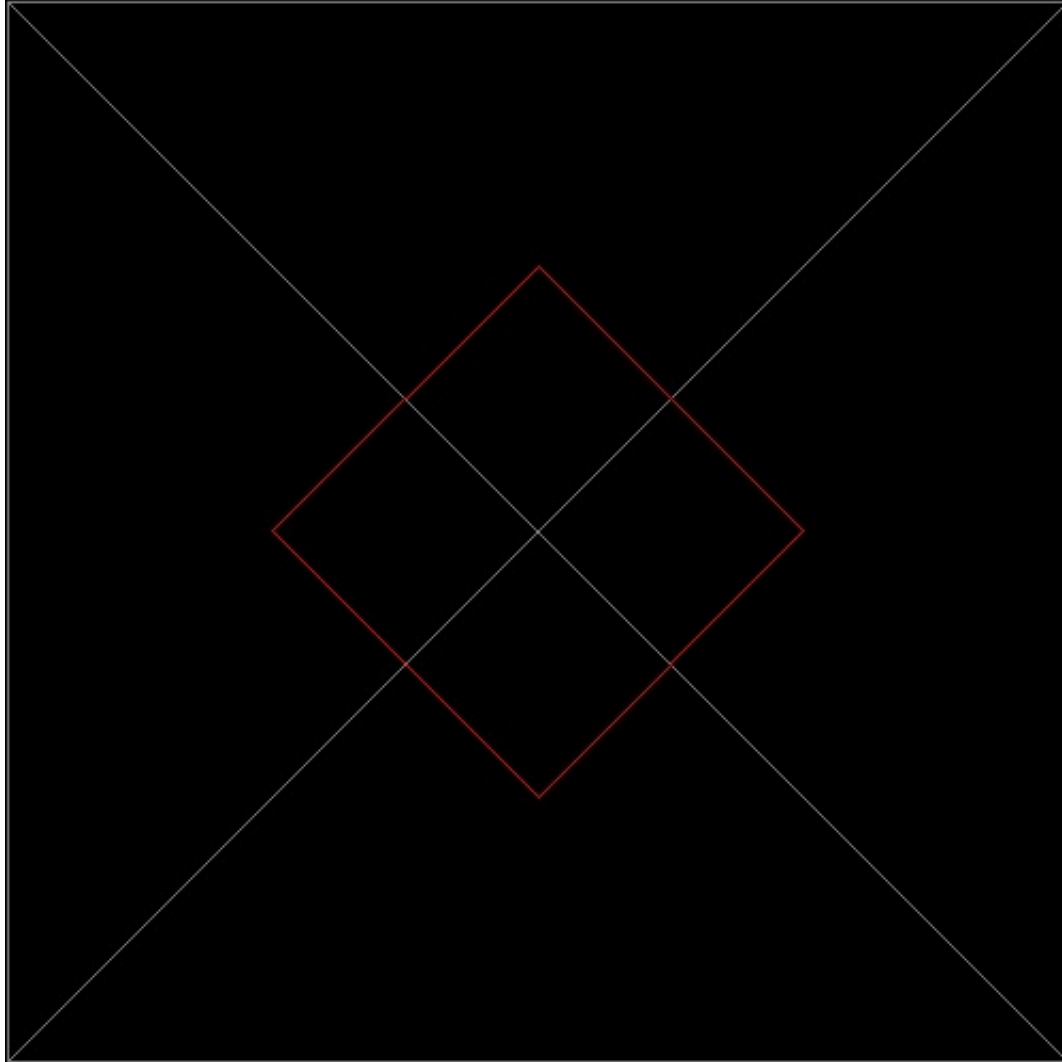
**Prof. Julio Arakaki**

## Fractais ?

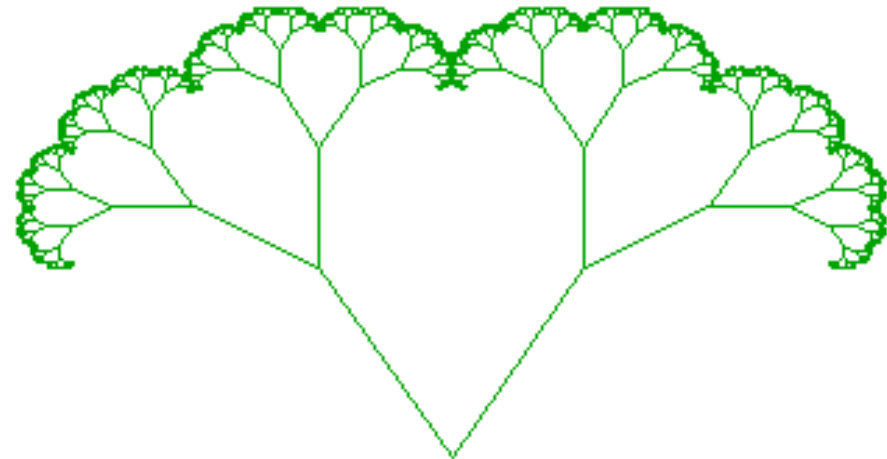
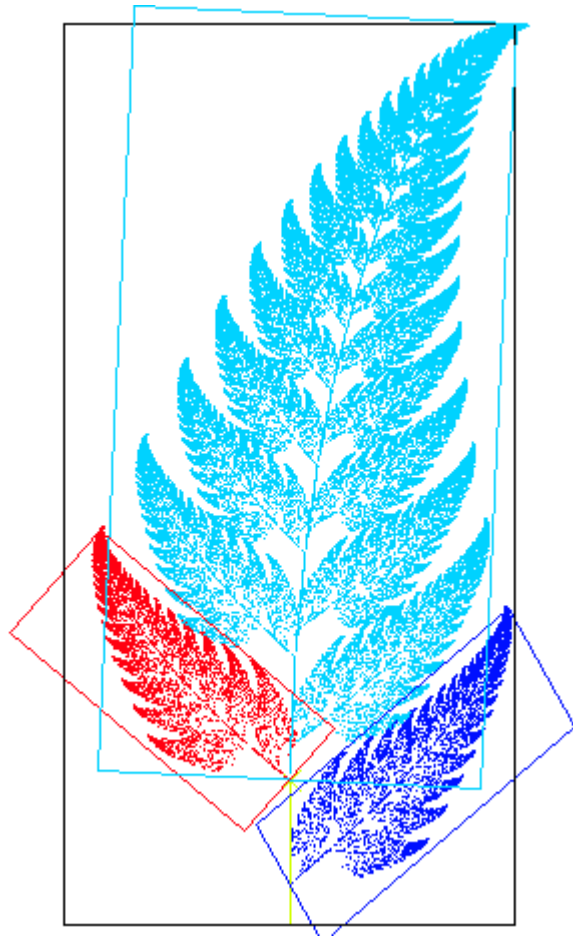
- São figuras da geometria não-Euclidiana.
- Um fractal é um objeto geométrico que pode ser dividido em partes, cada uma das quais semelhante ao objeto original.
- Diz-se que os fractais têm infinitos detalhes, são geralmente autossimilares e de escala. Em muitos casos um fractal pode ser gerado por um padrão repetido, tipicamente um processo recorrente ou iterativo.

*Ref: <https://pt.wikipedia.org/wiki/Fractal>*

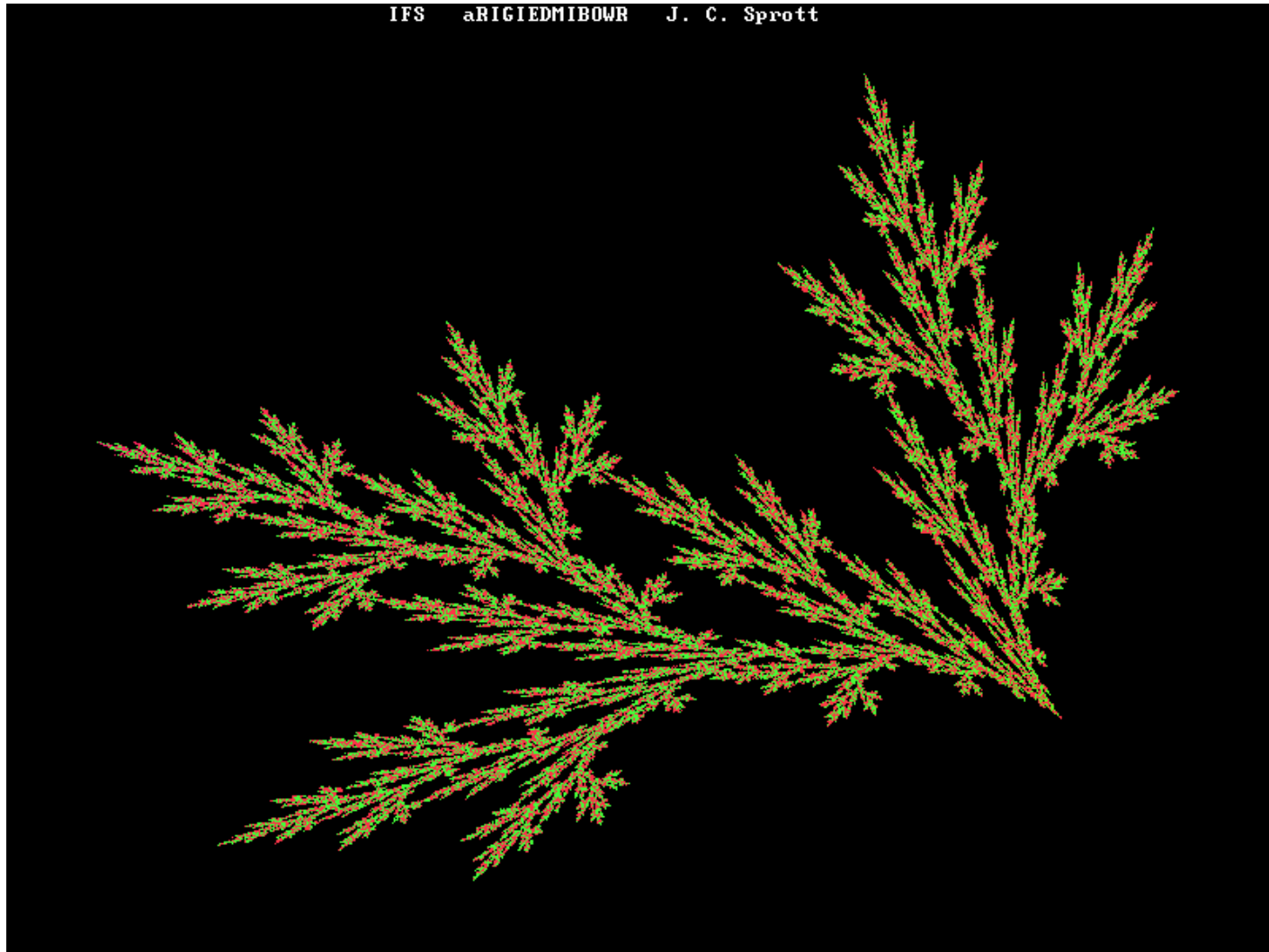
# Exemplo



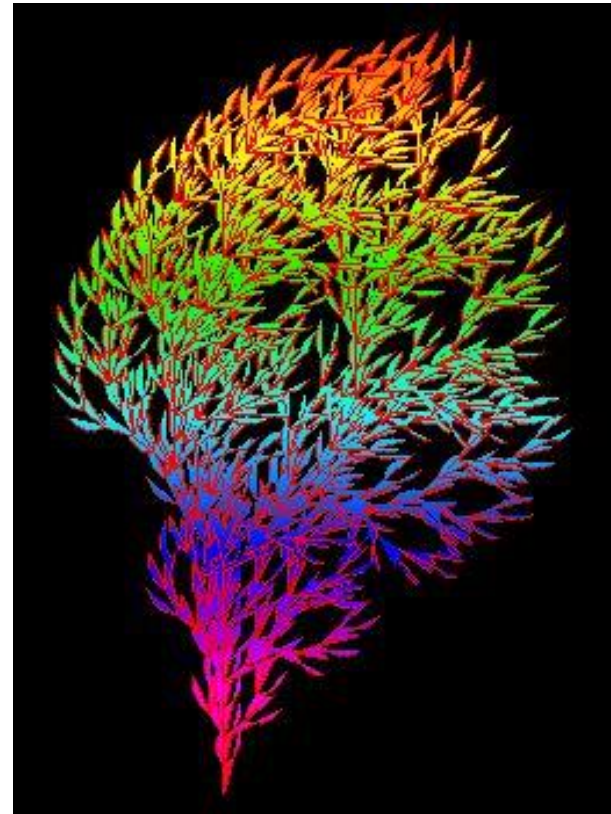
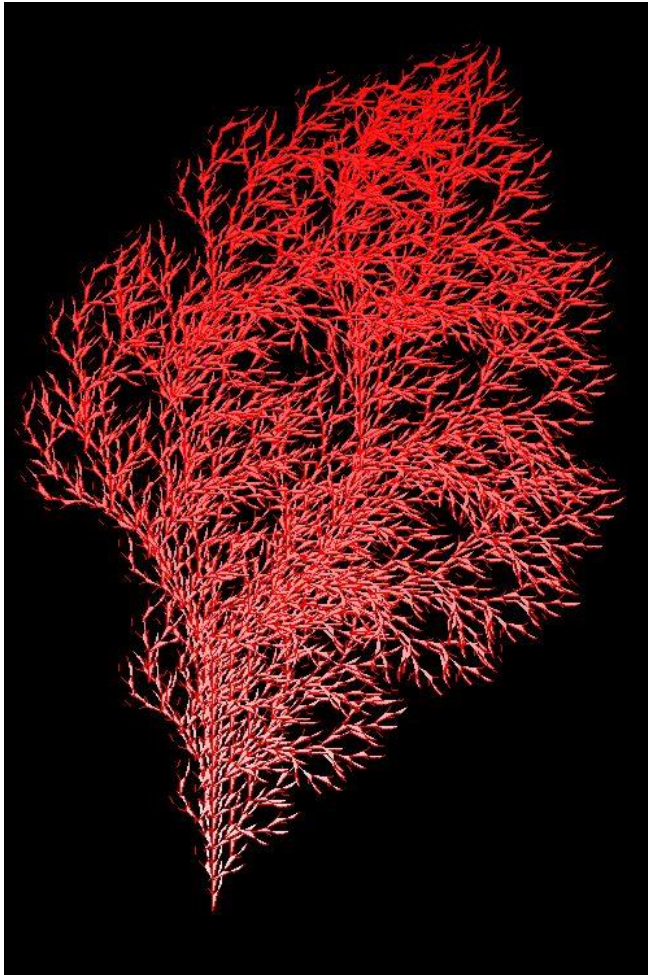
# Exemplo - plantas



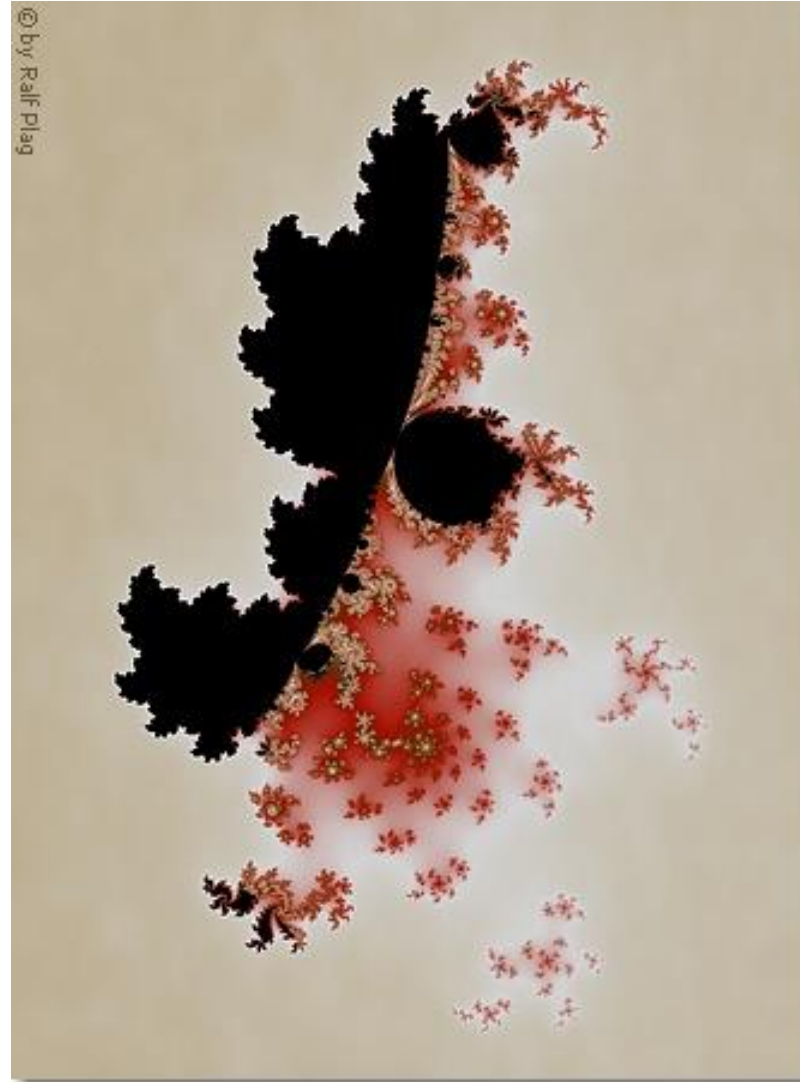
## Exemplo – plantas/cor



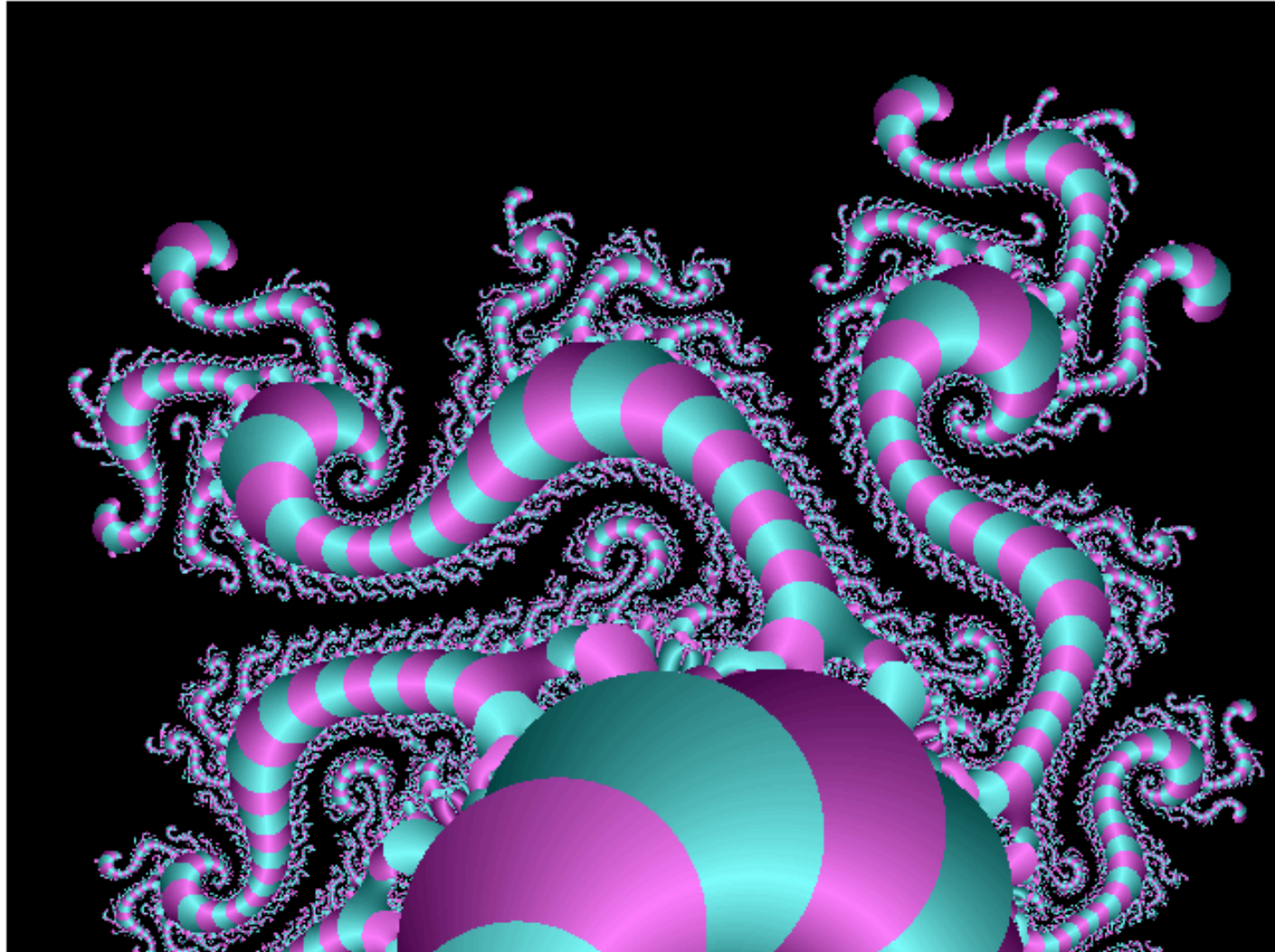
## Exemplo – plantas/cor



# Exemplo

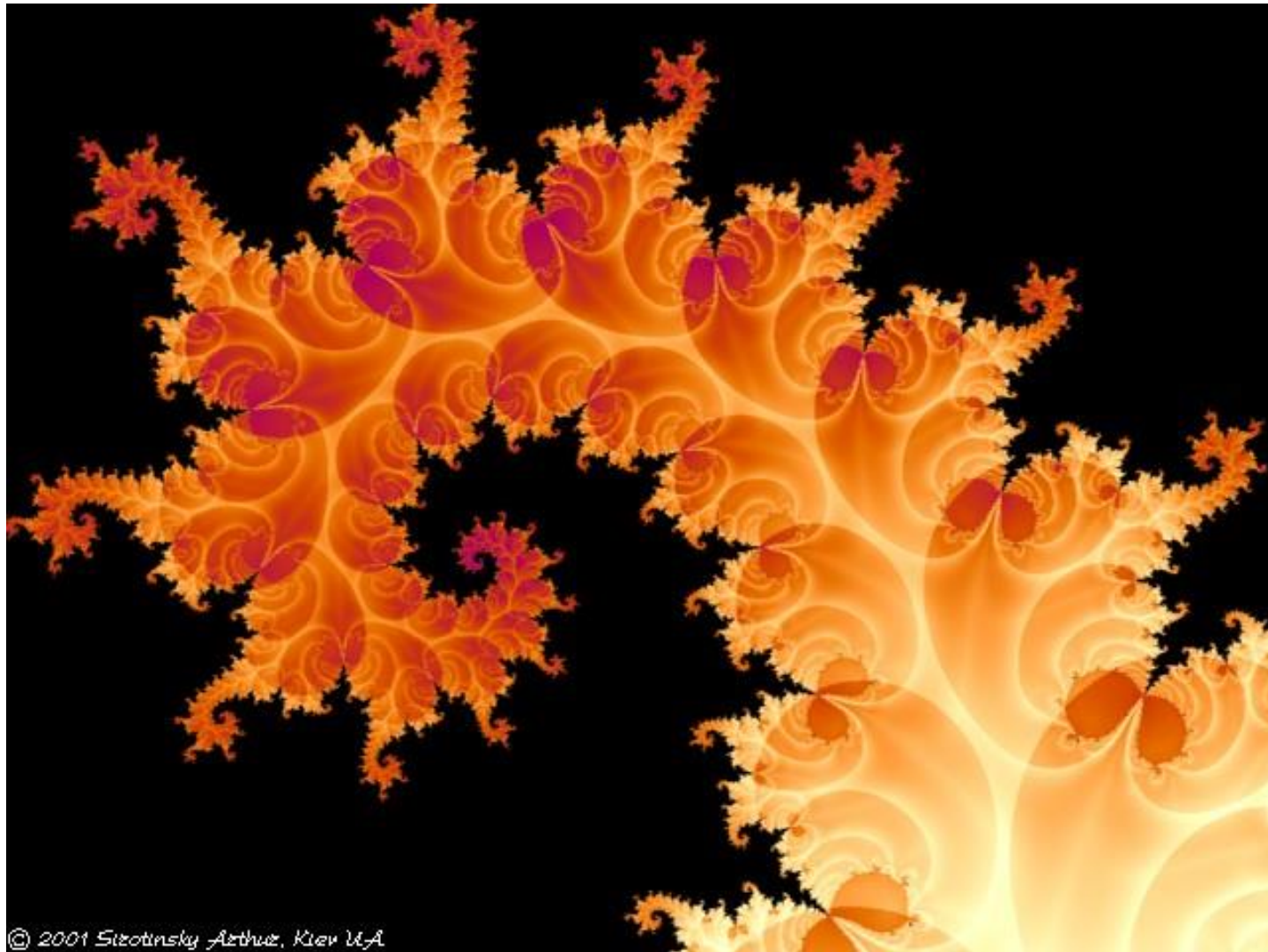


# Exemplo



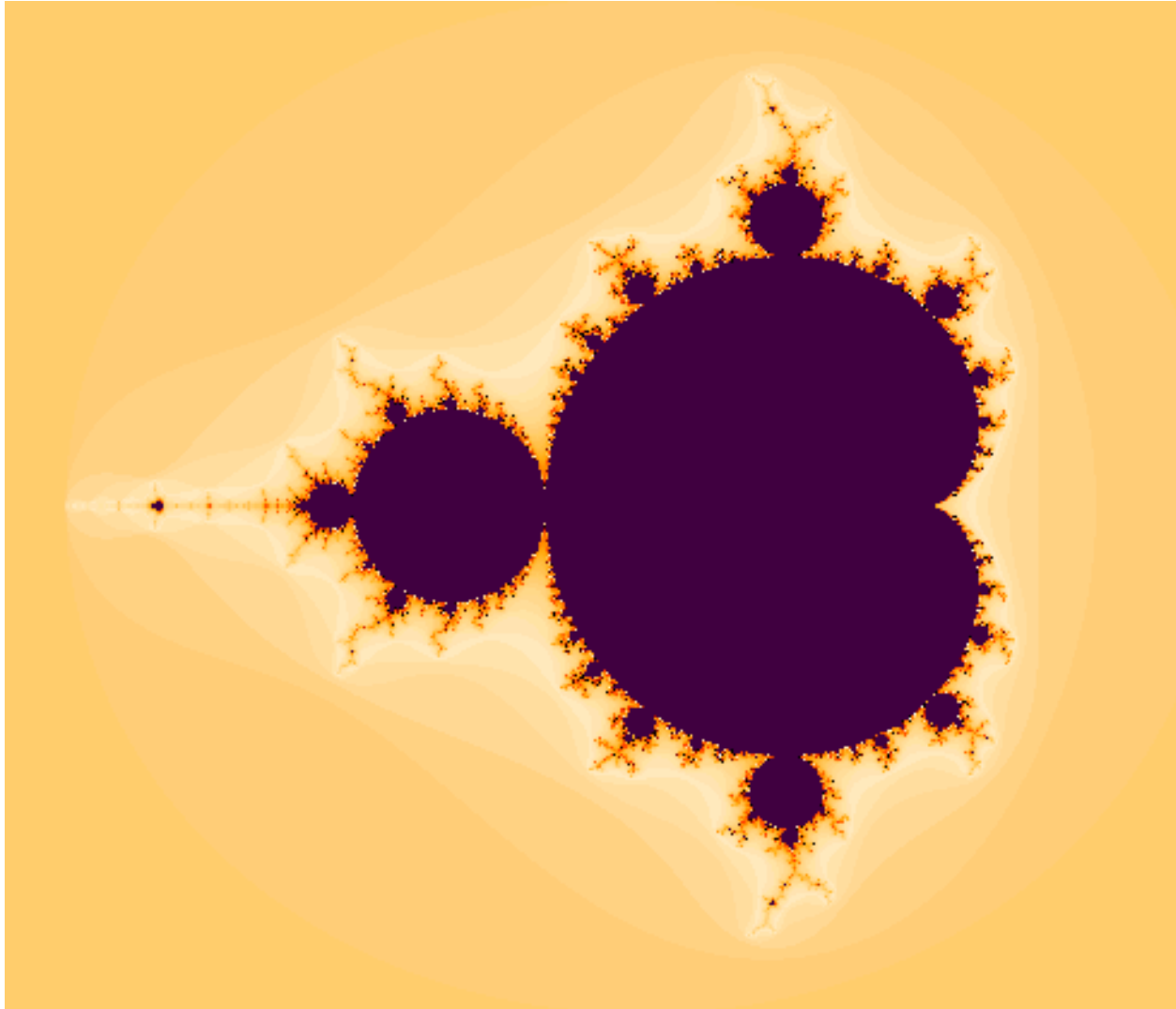


# Exemplo

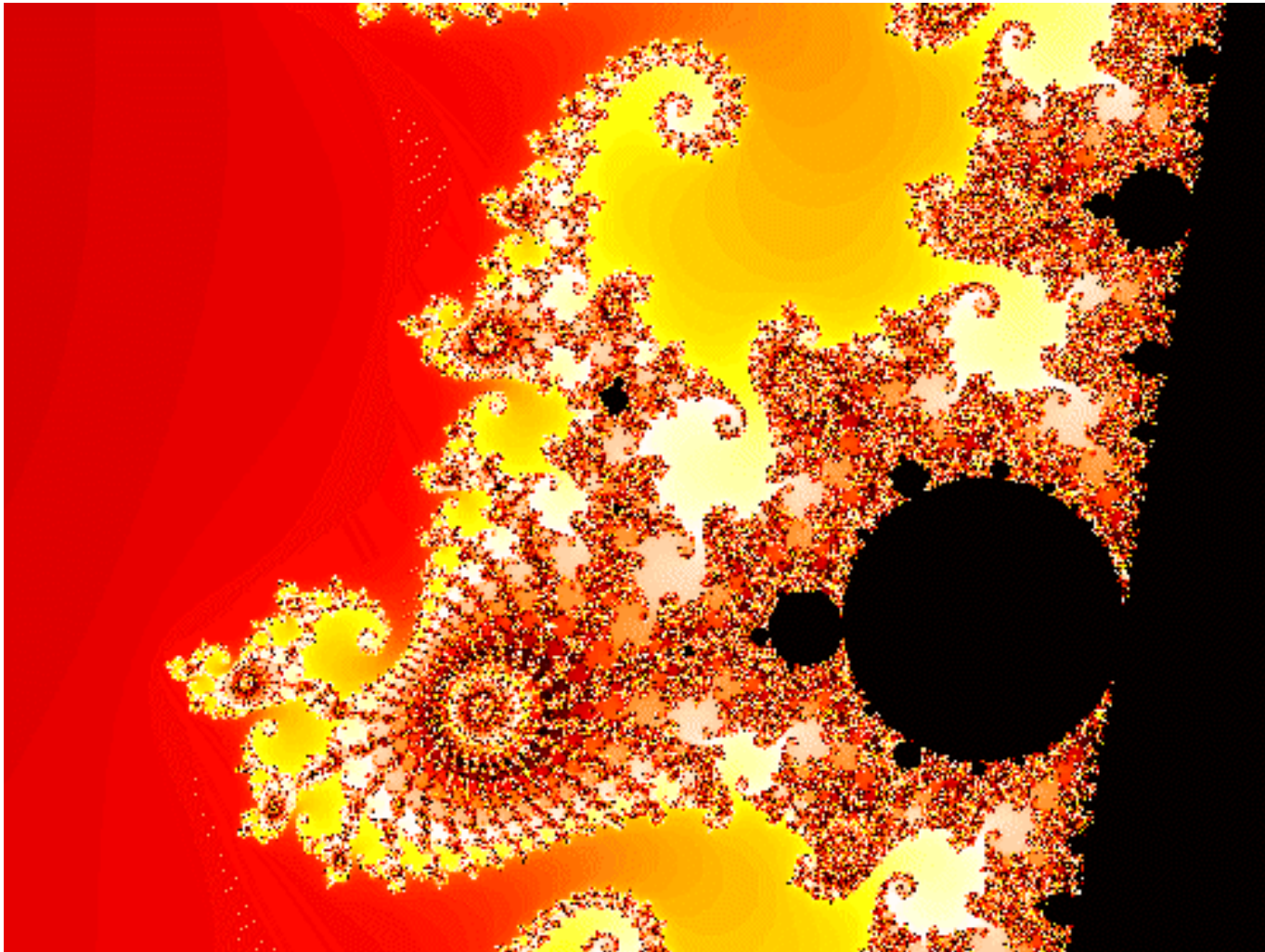


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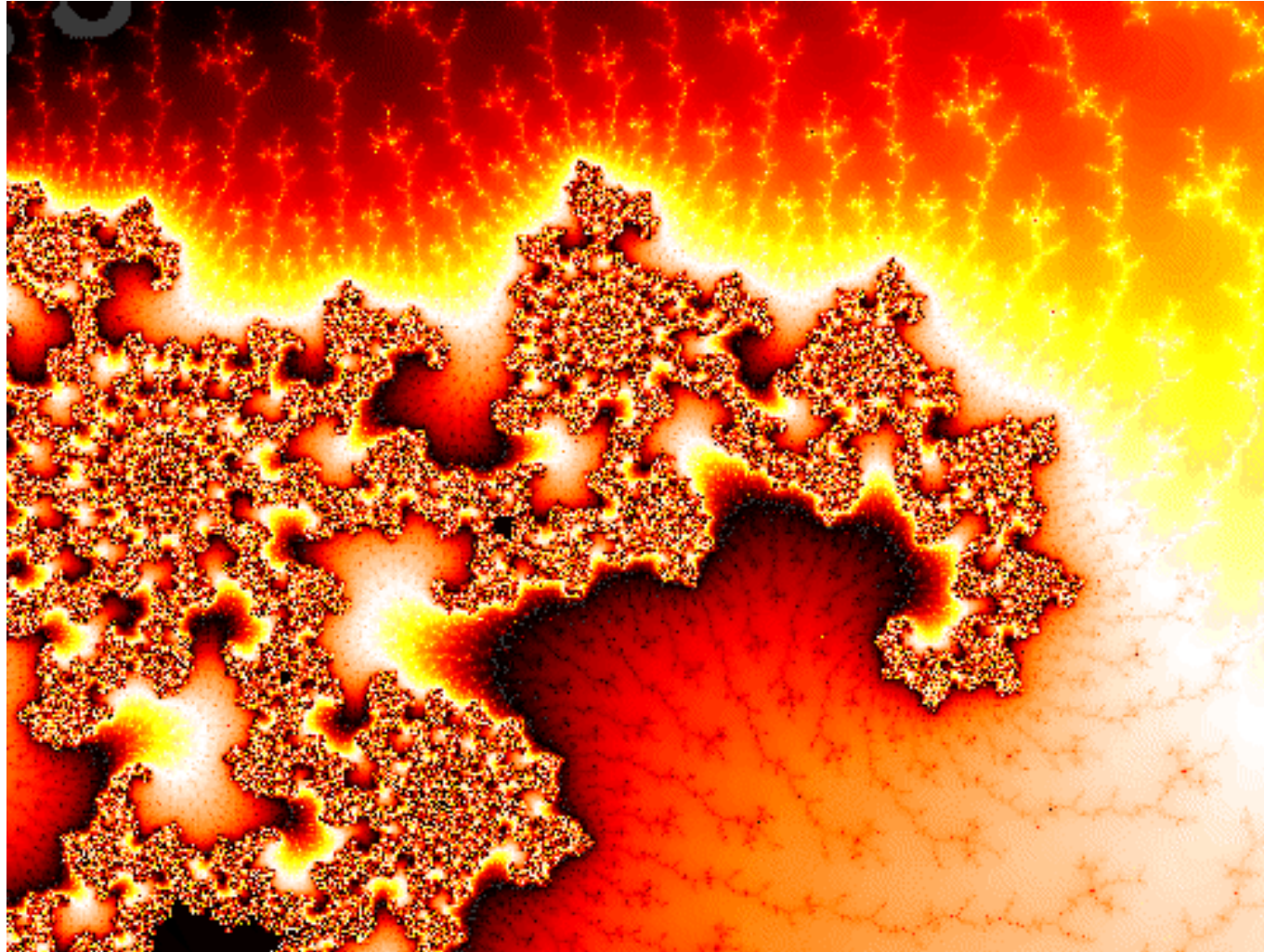
## Exemplo - Mandelbrot



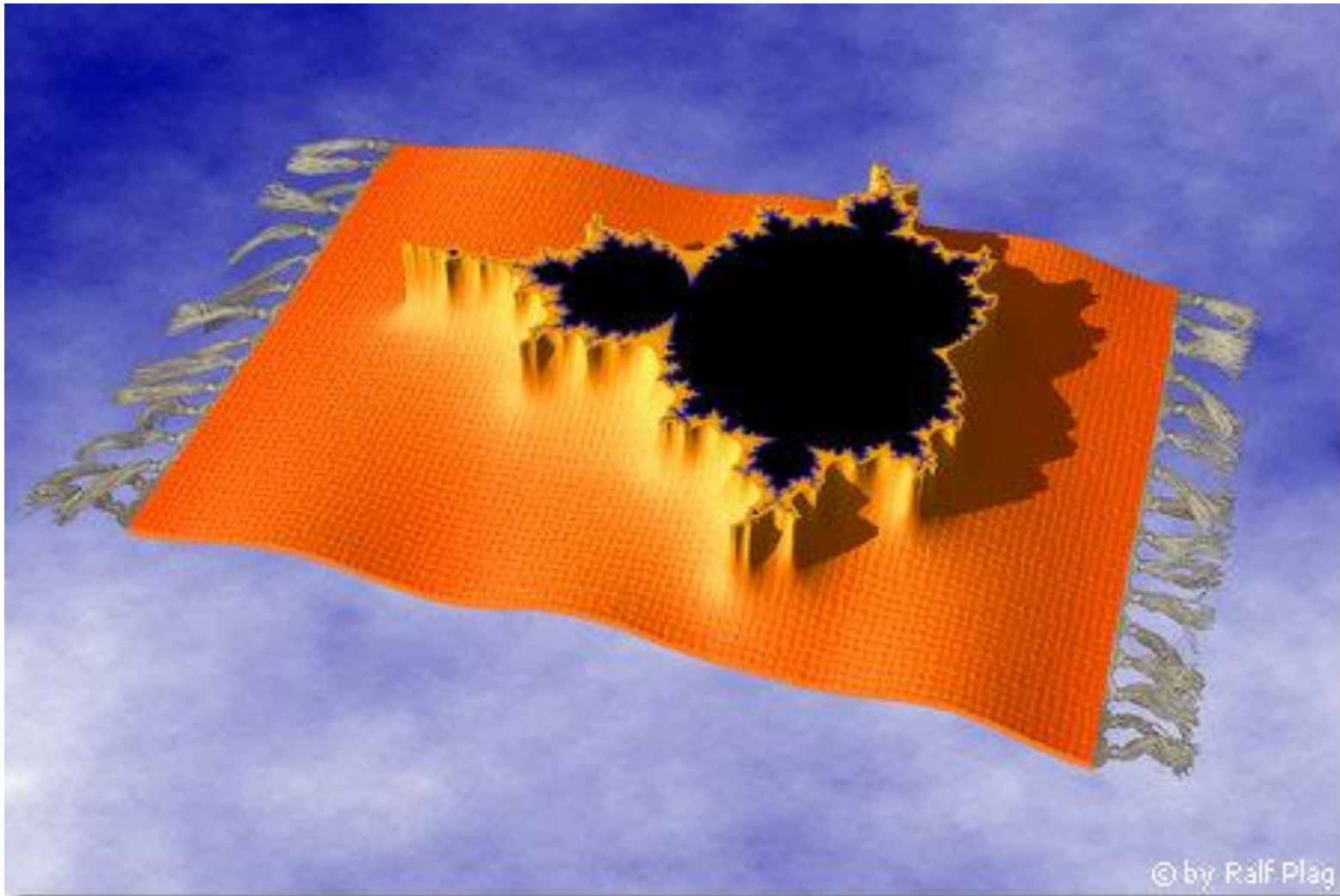
## Exemplo - Mandelbrot



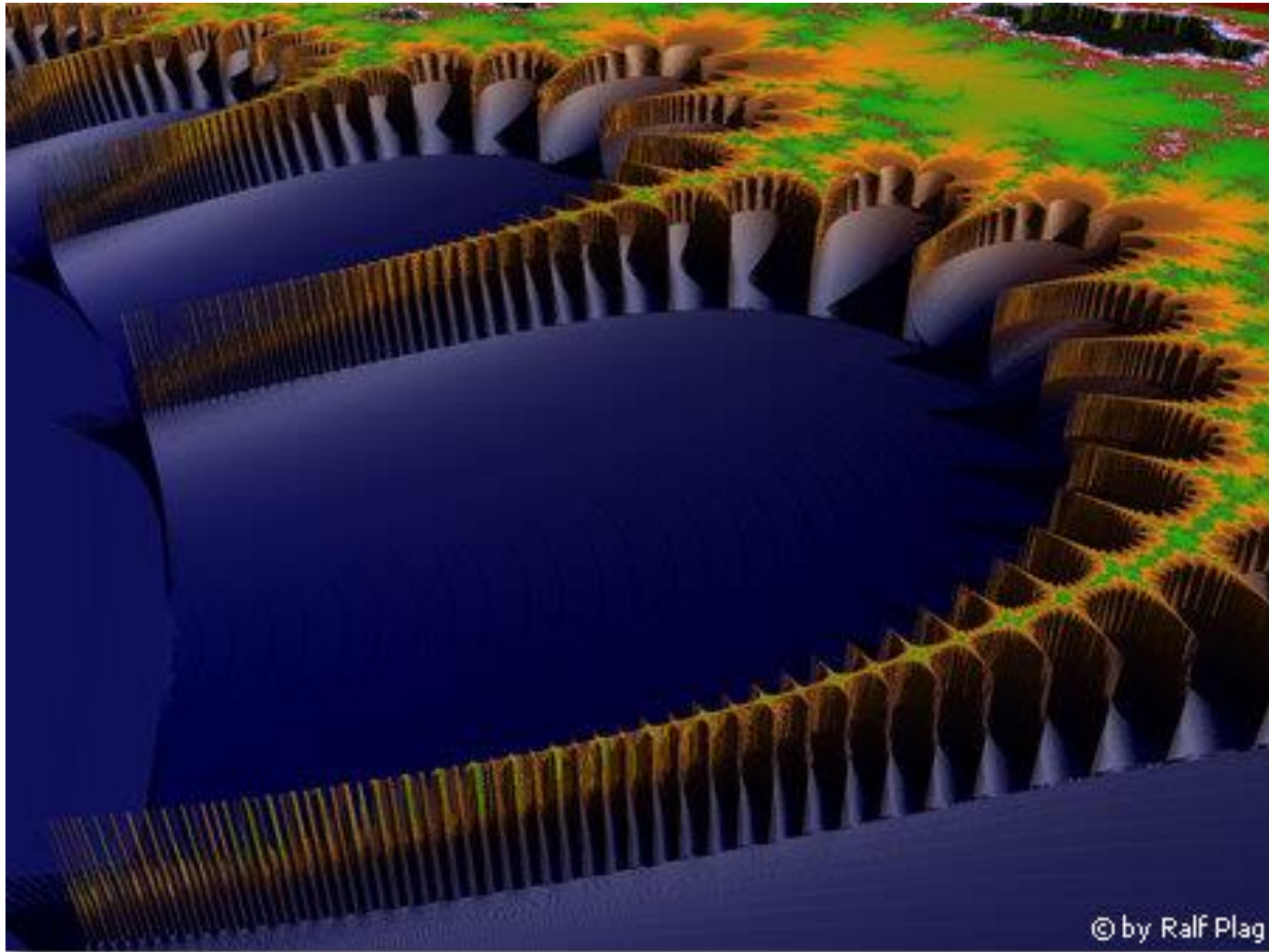
## Exemplo - Mandelbrot



## Exemplo – Mandelbrot 3D



## Exemplo – Mandelbrot 3D

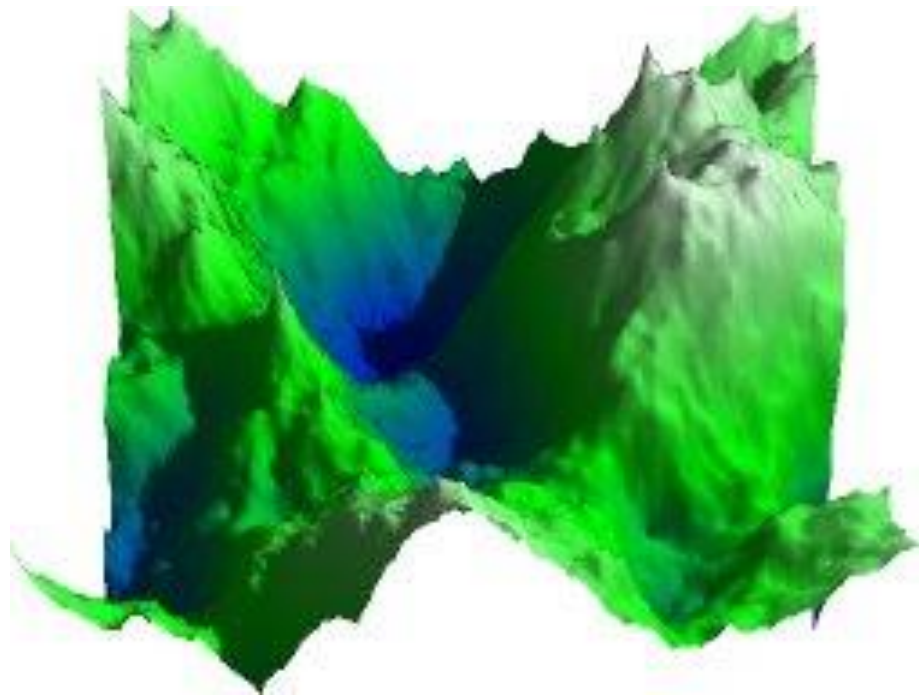
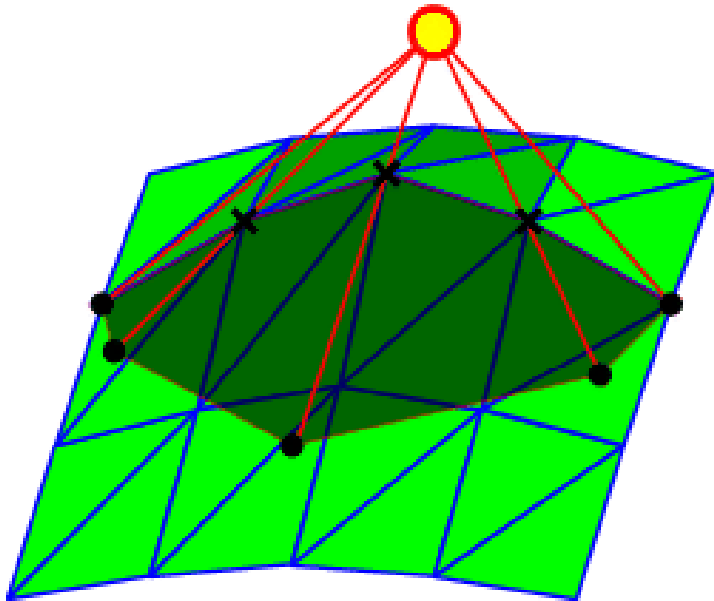


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## Exemplo - montanhas

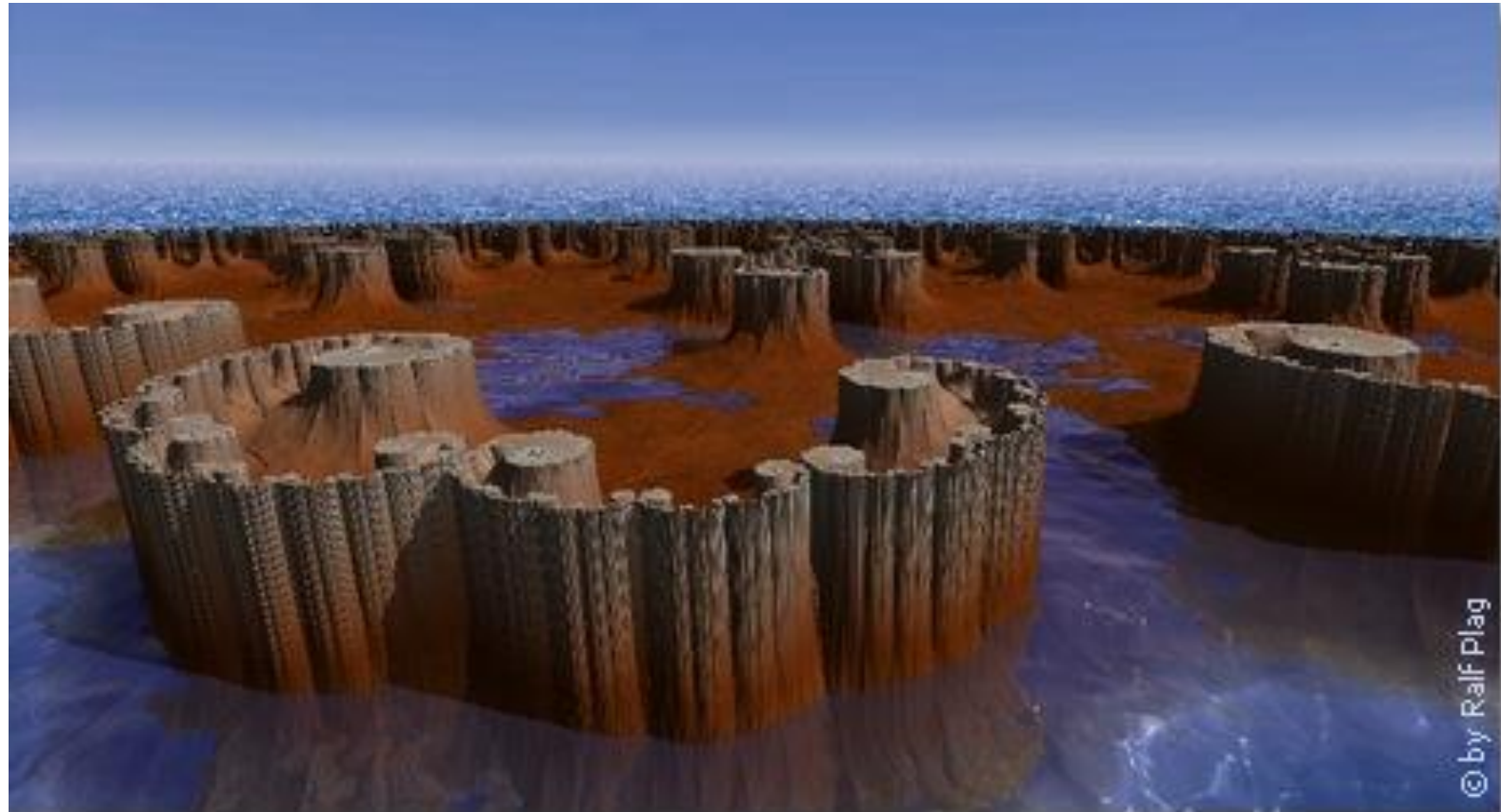


## Exemplo – montanhas - geração





# Exemplo



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# Exemplo

