



#### Storage of Multiresolution Terrain Model

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#### Background

- Eduilson L. N. C. Carneiro
- Data Processing Technologist
- Applied Computing PhD Candidate
- Storage of Multiresolution Terrain Model
- Supervisors:
  - Dr. Gilberto Câmara
  - Dr. Laércio Namikawa





## Motivation

#### Natural hazard X Topography



#### Natural hazard management X GIScience





### Hypothesis

Storage of multiresolution TIN can contribute to modeling, forecasting, analysis and visualization activities of land.



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## What is data structure to storage and retrieve multiresolution TIN in geographic database?







## Class Geometry (OGC)







### **Multiresolution Terrain Models**

- Multi-Triangulation (De Floriani et al., 1997; Puppo, 1998;)
- TIN Implícita Multiescala (Kidner, 2000)
- A Dynamic Method for Generating Multi-Resolution TIN Models (Yang, 2005)





#### Model







#### **Class Diagram**







#### Results







#### Future Work

Storage model with samples



What are the best points?

#### Points ranking

Current methods do ranking points from grid









![](_page_11_Picture_2.jpeg)

![](_page_11_Picture_3.jpeg)

![](_page_11_Picture_4.jpeg)

# Thanks!

![](_page_12_Picture_1.jpeg)

![](_page_12_Picture_2.jpeg)

![](_page_13_Picture_0.jpeg)

![](_page_13_Picture_1.jpeg)

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