

# Post-Graduate Program in Computer Science – UFSC

## Database Group! Join us!!

Instituto de Informática e Estatística – INE

### Professors and their research:



Prof. Dr. Ronaldo dos Santos Mello ([www.inf.ufsc.br/~ronaldo](http://www.inf.ufsc.br/~ronaldo))

#### Research interests:

- Data Integration/Interoperability and Similarity.
- Management of Data Integrity Constraints.
- Web Data Integration and Querying.
- Non-conventional Data Modeling.

**Research Abstract:** Modeling and management of non-conventional data is a long time but relevant research interest of the Database community. By non-conventional data we mean data with complex structure and complex manipulation procedures, like geographic data and data on the Web (XML sources, Deep Web, Web tables etc). These data have a highly heterogeneous structured or semistructured representation, and sometimes complex integrity constraints. Such a problematic raises several research challenges related to their management. Prof. Ronaldo's research efforts focus on the development of solutions for non-conventional (specially Web) data modeling, extraction, integration and structured queries.



Prof. Dr. Renato Fileto ([www.inf.ufsc.br/~fileto](http://www.inf.ufsc.br/~fileto))

#### Research Interests:

- Semantics of Data and Services
- Data Warehouses
- Geographical Information Systems

**Research Abstract:** information cataloging, retrieval and analysis are some of the most popular applications of computer science. Nevertheless, further research about the semantics of data and processing services is still needed, in order to obtain more valuable results, provide more sophisticated functionalities and improve the human-computer interaction, in comparison with merely lexical and syntactic systems. Prof. Fileto's researches focus on knowledge-based systems that exploit the user's intellectual context to describe, retrieve and reuse data and services, and support information integration and analysis, in spatial data warehouses, for example. Applications range from semantic support for organizing and operating information repositories to the analysis of complex data about a variety of activities and phenomena, such as the traffic and power grids.



Prof. Dr. Carina F. Dorneles ([www.inf.ufsc.br/~dorneles](http://www.inf.ufsc.br/~dorneles))

#### Research interests:

- Web data management, Deep Web e Dataspaces
- Similarity functions and data matching

**Research Abstract:** database community has spent efforts to treat the Web as a large database, trying to adapt the database techniques (data models, query languages, indexing methods) to the data on the Web. However, due to the heterogeneity and scale in which that data are, the direct application of such techniques is not appropriate. Thus, one goal of database community today is to manage the transition from traditional databases to a more challenging task, which is to manage a rich and voluminous collection of structured, semi-structured and unstructured data stored in different repositories. Prof. Carina F. Dorneles is involved in reach those techniques of conventional database that can be applied to Web, given its heterogeneity and scalability.



Prof. Dr. Vania Bogorny ([www.inf.ufsc.br/~vania](http://www.inf.ufsc.br/~vania))

#### Research Interests:

- Geographic Information Systems
- Spatial and Temporal-spatial Data-mining
- Spatio-temporal data analysis

**Research Abstract:** with the wireless explosion  the world becomes more and more mobile. Mobile devices leave behind digital traces that are collected as trajectories, describing the movement of its users. This new kind of data is called “*Trajectories of Moving Objects*”. As a new kind of data, data models and data mining methods are needed to analyze this data and extract interesting information. Applications of these methods and models include tracking of vehicles, migration of birds, traffic analysis, fishing control, etc.

You are invited to participate of database group meetings:  
Wednesday at 8:00PM!