

Zfl
Environmental Informatics
 (PhD Programme in Context of GAUSS)

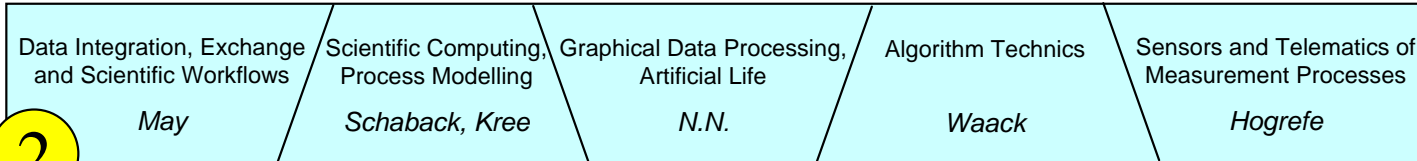
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5

Focus

Leuschner, Schütz, Tschamtko

Leuschner, Beese, Schütz, N.N.



2

Bioinformatics

- Scale Transfer Models
- Models of the Morphogenesis of Organs
 - Gene Databases
 - Regulatory Networks
- Models of Gen Expression
 - Sequence Analysis
 - Phylogenetic Trees
- and similar

Speaker Morgenstern

Ecological Informatics

- Scale Transfer Models
- Structure and Functional Models for Biota
- Extended Lindenmayersystems
 - Neuronal Networks
 - Artificial Life
- Biodiversity Models
- Ecosystem Models
 - Space-Related Environmental Information Systems
 - Visualization
 - Biometric Models
- and similar

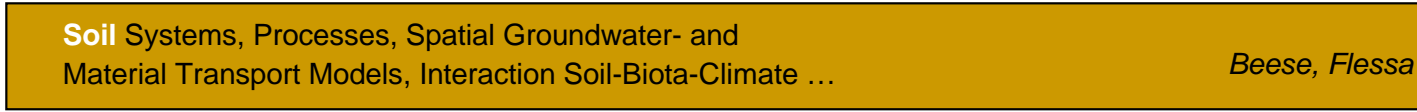
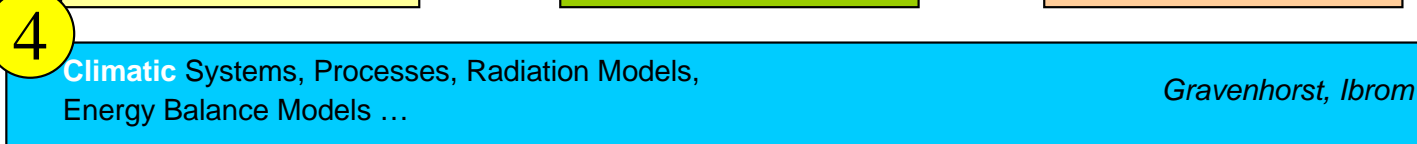
Speaker Sloboda /N.N.

Geoinformatics

- Scale Transfer Models
 - GIS
- Remote Sensing
 - Models for Land Use Systems
- Landscape Models
- Computer-Aided Cartography
 - Models for Watersheds
- Space-Related Networks
- Global Climatic Models
- and similar

Speaker Kappas

3



Biodiversity

Ecosystems

Focus

5

Silviculture, Plant Production, Sustainability

Land Use Systems

Gravenhorst, Beese, Gerold, Veldkamp

Global Change

Explanations for the provisional chart of the PhD program “Environmental Informatics” of the Zfl (Center for Informatics), integrated in the Graduated School GAUSS (Georg August University School of Science).

Concept and chart prepared by Prof. Sloboda on behalf of the speaker of the Zfl, Prof. Hogrefe.

①

① symbolizes an “umbrella” of the environmental informatics for the common PhD program. Here environmental informatics is defined in a comprehensive sense as an integrative subject, consisting of bioinformatics, ecological informatics, geoinformatics and scientific computing.

②

Block ② represents the subject components and prospective supervisors (examiners) belonging to the core informatics and of the scientific computing.

③

Bio-, eco- and geoinformatics, the applied informatics, are the pillars of the environmental informatics. They specify the contents of the elective fields of applied informatics with their supervisors. Applicants must choose one of these fields

④

The three bars represent the basic components of the environmental research, the atmosphere system, biota system and soil system, with their objects, processes and characteristics.

Here interesting innovative topics and scientific questions are to be explored and developed, in interaction with the environmental informatics. The outcome of these interactions shall result in significant themes of dissertations.

If necessary, a further supervisor from these applied fields should also be taken.

⑤

The environmental informatics ① (“Bio, Eco, Geo”) has - with a strong linkage - its focus on the four columns ⑤, two of them representing Excellence Clusters among the life sciences in Göttingen.

In particular, we have the biodiversity, ecology, “Global Change” and the land use systems (underlined are the excellence clusters). The latter comprises the main topics of forestry, forest ecology and agriculture.

These fields also serve as an integrative source for excellent themes of PhD theses for environmental informatics.

The formal admission rules, forms and requirements of the program, the quality of the support, form and quality of the thesis, the form of the assessment of academic activities and of the disputation in detail follow the valid regulations for the integrated PhD programs in the context of GAUSS.