



**METIER Graduate Training Course
“Ecological Modelling”**
22 May – 2 June 2008, Leipzig & Bad Schandau (Germany)




Welcome to the **METIER Graduate Training Course in „Ecological Modelling“**




22 May – 2 June 2008
Leipzig & Bad Schandau





Karin Frank; Introduction into the METIER Graduate Training Course in „Ecological Modelling“



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Marie Curie Series of Events METIER

„METHODS of Interdisciplinary Environmental Research“

Course 1: „Remote Sensing of the Atmosphere“

Course 2: „Information Management“

Course 3: „Remote Sensing of the Land Surface“


Course 4: „Geo-visualization“


Course 5: „Ecological Modelling“

Course 6: „Remote Sensing of the Hydrosphere“

Course 7: „Scenario development and forecasting“

Final conference: „Science meets Society“





organized by the network

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What is PEER?

PEER – Partnership for European Environmental Research

Network of seven large European centres for environmental research

Coordinated activities in research & graduate training



PEER member and host of this course:



esp. **Dept. of Ecological Modelling**





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Who is here?



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International Attendees

- 22 PhD students (out of 131 applicants) from all over the world:
- 16 x Europe, but also from: Brasil, Canada, South Africa, Tanzania & Australia
- 15 places of residence

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International Lecturers & Supervisors

In Leipzig:	Michael Müller Florian Hartig	Sten Zeibig Oliver Jakoby
In Bad Schandau:	Steve Railsback (USA) Jürgen Groeneveld (NZ) Justin Calabrese Michael Müller	Justin Travis (UK) Nadja Rüger Karin Frank

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Intention of the course



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Comprehensive approach

- Systematic introduction into ecological modelling (concepts, methods, tools, when what?)
- Examples for the potential of ecological modelling in modern environmental research and management
- Development of methodological skills (theory & practice); flavour of problem-oriented, interdisciplinary work in teams
- Active involvement of all the attendees
- Place for social activities and close interaction (among the attendees; with the lecturers...)

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Course structure



- **Pre-course** „Introduction into programming with Borland C++ Builder“
- **Lectures** on main concepts and approaches of ecological modelling
- **Supplementary talks** on the potential of ecological modelling
 - Biodiversity conservation
 - Sustainable use of natural resources
 - Disease control
 - Assessment of and adaptation to the impacts of climate change
- **Practical work** on given modelling projects in small groups
- Presentation of the **attendees' PhD projects** and their linkage to ecological modelling
- Various **social activities**



Course programme

In Leipzig (Leipziger KUBUS; UFZ Area):

	Thu, 22 May All	Fri, 23 May Sten Zeibig	Sat, 24 May Michael Müller	Sun, 25 May All
09.00 – 12.00	15:00 The Start	L&P: Introduction into programming	L&P: Introduction into programming	Bus transfer to and guided tour through Dresden
13.00 – 14.00		<i>Lunch break; Tour through UFZ</i>	<i>Lunch break</i>	
14.00 – 18.00		L&P*: Introduction into programming	L&P: Continuation	L&P: Continuation
			Guided tour through Leipzig	Presentation of the attendees' PhD projects
19.00 –	<i>Welcome reception</i>	<i>Dinner in the city</i>	<i>Dinner in the "Moritzbastei"</i>	<i>Dinner</i>

In Bad Schandau:

	Mon, 26 May Karin Frank	Tue, 27 May Steve Railsback	Wed, 28 May Justin Travis	Thu, 29 May Nadja Rüger
09.00 – 12.00	L: Introduction	L: Individual-based models	L: Models with temporal variability	L: Spatial models
12.00 – 14.00	<i>Lunch break</i>	<i>Lunch break</i>	<i>Lunch break</i>	<i>Lunch break</i>
14.00 – 18.30	Practical work	Practical work	Tour through the National Park	Practical work
18.30 – 20.00	<i>Dinner</i>	<i>Dinner</i>	<i>Dinner</i>	<i>Dinner</i>
20.00 -20.30	T: Talk (Guy Pe'er)	T: Talk (Steve Railsback)	T: Talk (Karin Johst)	T: Talk (Hans H. Thulke)
20.30 -	Open	Open	Open	Open

	Fri, 30 May Jürgen Groeneveld	Sat, 31 May Justin Calabrese	Sun, 1 June All	Mon, 2 June Karin Frank
9 – 12.00	L: Mathematical models	L: Bridging between rule- & equation-based models	Preparation of the project presentation	Synthesis, feedback, questionnaires & certificates
12.00 – 14.00	<i>Lunch break</i>	<i>Lunch break</i>	<i>Lunch break</i>	<i>Lunch</i>
14.00 – 18.30	T: Talk (Justin Calabrese) Practical work	Practical work	Project presentation	The End
18.30 – 20.00		<i>Dinner</i>	<i>Dinner</i>	
20.00 –	<i>Dinner in the "Ziegelscheune"</i>	Open	Party	

* L: Lecture, P: Practical, T: Supplementary talk