



**DFG**

# 8th International Conference on Function Spaces, Differential Operators, and Nonlinear Analysis

Tabarz/Thür. (Germany), September 18 - 24, 2011

## Second Announcement

Dear Colleague,

we have received your preregistration for the

### 8<sup>th</sup> International Conference on "Function Spaces, Differential Operators, and Nonlinear Analysis", (FSDONA-2011),

September 18-24, 2011.

<http://fsdona2011.uni-jena.de/>

with great pleasure. This meeting will continue the series of previous successful FSDONA-conferences held in Finland, Czech Republic and Germany: *Sodankylä-88, Friedrichroda-92, Paseky-95, Syöte-99, Teistungen-01, Milovy-04, Helsinki-08.*

It is our intention to stimulate international collaboration, and to promote the interaction of function spaces, PDE and computational mathematics in unifying efforts. This time the focus will lie on the theory of function spaces and its applications to various fields of mathematics like

- PDE's (existence of solutions and regularity theory),
- spectral theory of differential and integral operators,
- approximation and computational mathematics,
- nonlinear analysis,
- inverse problems.

The conference is mainly funded by the DFG (Ha 2794/6-1) and the Friedrich-Schiller-University Jena.

We thank you for your interest and would like to give some further information.

### 1. Lectures

The programme of the conference consists of invited lectures (50 minutes) and further talks given by the participants. The main lectures are the following:

- **Victor I. Burenkov**, *L.N. Gumilyov Eurasian National University / Kazakhstan*  
"Recent progress in the problem of spectral stability estimates for elliptic operators"
- **Fernando Cobos**, *Universidad Complutense de Madrid / Spain*  
"Limit interpolation methods"
- **Stephan Dahlke**, *Philipps-Universität Marburg / Germany*  
"Besov regularity of solutions to PDEs: An overview"
- **Pavel Drábek**, *University of West Bohemia in Pilsen / Czech Republic*  
"Some qualitative properties of quasilinear boundary value problems"
- **Peter A. Hästö**, *University of Oulu / Finland*  
"Function spaces with variable exponent and image processing"
- **Yavdat Ilyasov**, *Russian Academy of Science, Ufa / Russia*  
"Extended functional method and new results on the existence of solutions to nonlinear problems"

- **Hideo Kozono**, *Tohoku University / Japan*  
"Global compensated compactness theorem for general differential operators of first order"
- **Miroslav Krbeč**, *Academy of Sciences of the Czech Republic / Czech Republic*  
"On reduced Sobolev imbeddings"
- **Yaroslav Kurylev**, *University College London / U.K.*  
"Boundary Control Method and Geometry of Inverse Problems"
- **Andrei K. Lerner**, *Bar-Ilan University / Israel*  
"A Carleson type representation for the local sharp maximal function"
- **Akihiko Miyachi**, *Tokyo Woman's Christian University / Japan*  
"Sharp conditions on the multilinear Fourier multipliers"
- **Lassi Päivärinta**, *University of Helsinki / Finland*  
"Borderline between visible and invisible"
- **Luboš Pick**, *Charles University Prague / Czech Republic*  
"Isoperimetric problem and higher-order Sobolev embeddings"
- **Mikko Salo**, *University of Helsinki / Finland*  
"Fixed energy inverse scattering"
- **Stefan Samko**, *Universidade do Algarve / Portugal*  
"Classical operators of harmonic Analysis in the generalized variable exponent Morrey type spaces"
- **Hans Triebel**, *Friedrich-Schiller-University Jena / Germany*  
"Dominating mixed smoothness, numerical integration, discrepancy"
- **Dachun Yang**, *Beijing Normal University / China*  
"Hardy-type spaces associated with some differential operators"

We received many further applications for talks (20 minutes) and try to arrange the program as convenient as possible. But surely we cannot avoid parallel sessions taking place in the afternoons. Moreover, a small number of talks will be selected in advance and granted an extended length (35 minutes).

We ask all participants (who have not yet done this) to send us titles & abstracts of their talks **by June 15, 2011**, at latest. There will also be an opportunity for ad hoc -seminars.

The lecture rooms will be equipped with overhead projector, data projector + laptop, and a small board.

You can have a look at the (preliminary) list of participants and the corresponding abstracts via our web-site.

## 2. Lecture Notes

Instead of (usual, printed) *Proceedings* we plan to offer all speakers of this workshop the possibility to send us their material, slides etc. afterwards (preferably in **pdf**). Alternatively also a (closely linked) paper would be welcome.

We collect all this material (or links to your personal web pages) and "publish" it on a special web page of this workshop such that participants can download the files.

You may contact us if you have any question.

## 3. Registration

You will receive a separate Email within the next days where we ask you to confirm and complete your details for the registration. As soon as you reply to this email to us

**fsdona2011@uni-jena.de**

your registration becomes binding and we shall reserve the accommodation according to your wishes then. You should reply to this confirmation message by

**June 15, 2011**

at latest.

Please note, that we cannot guarantee that everyone who applied for a single room can have

it, because the total number of rooms is restricted (and we shall have a lot of participants). So please read your confirmation message carefully ! We apologise for any inconvenience this may cause you in advance.

#### 4. Venue

The Conference will take place in

**Hotel "Am Burgholz", Tabarz / Thüringen**

<http://www.hotel-am-burgholz.de/>

situated in a beautiful countryside about 100 km west of Jena.

The charming Kneipp health resort Tabarz (<http://www.tabarz.de>) is situated right in the middle of the biggest coherent forest area of Germany on the base of the 916,5 meter high mountain "Inselsberg" and quite near is Germany's most famous hiking trail, the "Rennsteig". One may enjoy the nice and well cared-for gardens of the two spa-parks or one can visit the fairy-tale meadow "Lauchgrund" which is also part of the "German road of toys" (<http://www.spielzeugstrasse.de>).

Since September 2001, Tabarz is a place of cure recognised officially by the State and carries the title "Kneippkurort". It is a method which implements the rules of the natural therapist and homoeopath Sebastian Kneipp (1821-1897). Visitors benefit from the adequate climate and the splendid landscape for long walks or excursions; also the large indoor swimming pool "TABBS" (<http://www.tabbs.de/>) is very popular and well-known. Close to Tabarz there are many interesting places which are worth the effort to be known and seen.

#### 5. Costs & Payment

The accommodation is arranged at the hotel in single and double rooms with full board (*buffet breakfast, lunch and dinner*). The price is **87 €** per night and person in a single room and **82 €** per night and person in a double room.

The conference fee is **80 €**, if paid before **July 15, 2011**, and **100 €** after July 15, 2011. It must be paid by bank transfer only, where bank charges have to be assumed by the registrant.

After doing the bank transfer, please send us an email ([fsdona2011@uni-jena.de](mailto:fsdona2011@uni-jena.de)) or a fax (+49 3641 9-46102), with a copy of the bank remittance slip. The details of the conference account are :

Account name	:	<b>Friedrich-Schiller-Universität Jena</b>
Code	:	<b>your name + FSDONA2011 + 06101380</b>
Bank	:	<b>Deutsche Bundesbank Erfurt</b>
BLZ	:	<b>820 000 00</b>
Account number (in Germany)	:	<b>830 015 03</b>
BIC	:	<b>MARK DEF 1820</b>
IBAN	:	<b>DE 0982 00000000 83001503</b>

The address of the bank (in case you need it) is: *Deutsche Bundesbank, Filiale Erfurt, Max-Regel-Strasse 14, D-99096 Erfurt, Germany.*

#### 6. Conference Schedule

The arrival is on Sunday evening (September 18, 2011) followed by a joint dinner. The lectures are scheduled on Monday (not starting before 9:30 a.m.), Tuesday, Wednesday morning, Thursday and Friday (lasting until 6 p.m. at latest).

Wednesday afternoon is reserved for a hiking trip through the beautiful local scenery. Alternatively, we shall organise a guided tour in the Thuringian capital Erfurt with its famous historic city centre, the well-known cathedral and a lot of further attractions. There will be some charge for the guided tours and the bus transfer which can be paid at the conference registration in the hotel (together with the final booking of the excursion). However, as we have to arrange details (busses, guides etc.) in advance, please let us know by **June 15, 2011** in which programme (hiking / Erfurt) you are interested.

We shall have a special workshop dinner, most likely on Wednesday evening.

Moreover, we plan to have an international football match (if there are enough potential players).

## 7. Travel information

Gotha, only a few kilometres away from Tabarz, has direct fast train connections to Berlin and Frankfurt/Main. You may find them via <http://reiseauskunft.bahn.de/>. From Gotha to Tabarz you can use local trains (every 40 minutes during the day, taking about 60 minutes), but we shall also organise some shuttle service in addition. Further detailed travel instructions to the venue can be found on the (German) web-pages of the hotel.

For making the arrangements as smooth as possible, we ask you to inform us about your exact arrival time in Tabarz in your earliest convenience.

## 8. Summary of the deadlines

- June 15, 2011** complete and return the confirmation email for your registration (*which you will get within the next days*)  
latest submission of titles and abstracts for talks  
your choice for the excursion (*hiking tour / Erfurt*)
- July 15, 2011** conference fee at reduced rate

## 9. Latest news

You may visit our conference web-site

<http://fsdona2011.uni-jena.de/>

regularly to find out the latest news (preliminary list of participants, programme etc.).

The last announcement with further details will be mailed by the end of August 2011.

We are looking forward to meeting you in Tabarz.

*Dorothee D. Haroske, Hans-Gerd Leopold, Thomas Runst, Hans-Jürgen Schmeißer*

*For further information, please contact us via*

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