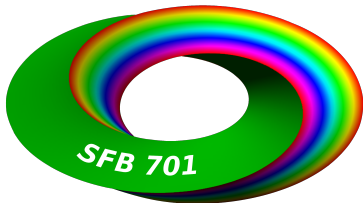


Collaborative Research Centre 701

Spectral Structures and Topological Methods in Mathematics



Spectral Analysis, Asymptotic Distributions and Stochastic Dynamics

Projects 2001

- | | |
|--------------|---|
| H. Abels | Dynamics and geometry of algebraic linear groups |
| W.-J. Beyn | Numerics and spectral analysis of infinite-dimensional systems |
| P. Blanchard | Selforganized criticality |
| F. Götze | Asymptotics of stochastic models and spectral distributions |
| W. Hansen | Harmonic functions and non homogeneous media |
| M. Röckner | Analysis and geometry of differential operators and stochastic processes in infinite dimensional spaces |

partly integrated in July 2005 into SFB 701

In CRC 701 applied and theoretical mathematics have joined forces in order to realize the considerable potential of infra disciplinary research. Besides representation theoretic methods and p -adic structures in arithmetic algebraic geometry there was

- ▶ Influence of new concepts of mathematical physics :
 - ▶ Seiberg-Witten invariants in topology
 - ▶ universal spectral distributions in quantum physics and number theory
 - ▶ quantum field theory and theory of moduli spaces in algebraic topology
 - ▶ concepts of quantum information and quantum groups
- ▶ Applications in theoretical physics, fluid dynamics, crystallography, material sciences and mobile communications of results in
 - ▶ topology
 - ▶ number theory
 - ▶ stochastic analysis
 - ▶ free probability

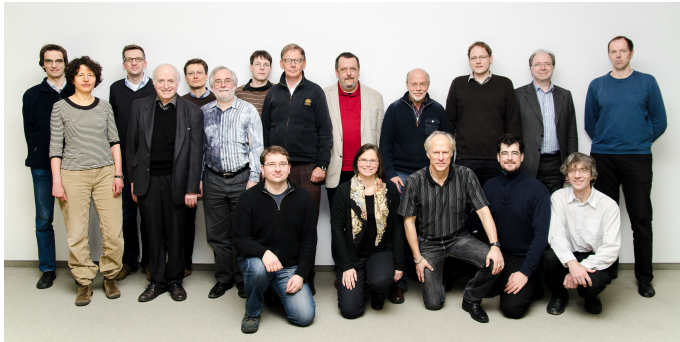
respectively.



Principal investigators 2005-09

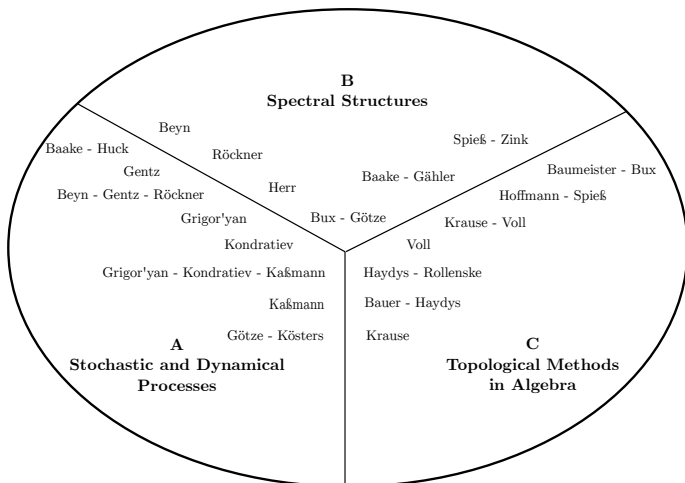


Principal investigators 2009-13



Principal investigators 2013-17

Projects and project areas 2013-17:



The width and depth of these interactions are reflected in the topics of events like:

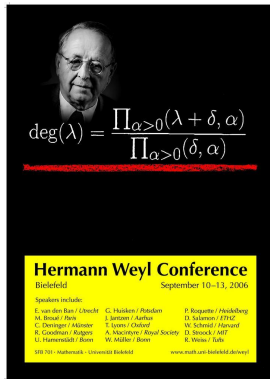
Hermann Weyl Conference

September 10-13, 2006

The [CRC 701 \(Sonderforschungsbereich\)](#) is organizing a conference in honour of Hermann Weyl.

List of Speakers

- E. van den Ban (Utrecht)
- M. Broue (Paris)
- C. Deninger (Münster)
- R. Goodman (Rutgers)
- U. Hamenstädt (Bonn)
- G. Huisken (Potsdam)
- J. Jantzen (Aarhus)
- H. Kalf (München)
- A. Laptev (Stockholm)
- T. Lyons (Oxford)
- A. Macintyre (London)
- W. Müller (Bonn)
- N. Nadirashvili (Marseille)
- M. Pflaum (Frankfurt)
- P. Roquette (Heidelberg)
- M. Rost (Bielefeld)
- D. Salamon (ETHZ)
- T.A. Springer (Utrecht)
- D. Stroock (MIT)
- R. Weiss (Tufts)



Click on the poster to see both posters.

Workshop "Non-crossing partitions in representation theory"

Thursday, 12 June to Saturday, 14 June 2014

Location: Bielefeld University. All talks will be given in the main university building (UHG), for detailed information please see the [workshop programme](#). Maps are available on the university's [travel information page](#).

Schedule: Talks start Thursday morning and finish Saturday in the late afternoon.

Organisers: Barbara Baumeister, Andrew Hubery, Henning Krause, Christian Stump

Support: DFG CRC 701 "Spectral Structures and Topological Methods in Mathematics", DFG SPP 1388 "Representation Theory", EPSRC Network Grant "Anglo-Franco-German Representation Theory", GDRI 571 "French-British-German network in Representation theory" and DFG SPP 1489 "Computer Algebra".

Registration: If you would like to attend the workshop, please register using the [webform](#).

Workshop speakers

- Drew Armstrong (Coral Gables, Florida)
- David Bessis (Paris)
- Tom Brady (Dublin)
- Frédéric Chapoton (Lyon)
- Raquel Coelho Simões (Lisbon)
- Patrick Dehornoy (Caen)
- Matthew Dyer (Notre Dame, Indiana)
- Thomas Gobet (Amiens)
- Christian Krattenthaler (Vienna)
- Gus Lehrer (Sydney)
- Jean Michel (Paris)
- Dmitri Panyushev (Moscow)
- Nathan Reading (Raleigh, North Carolina)
- Claus Michael Ringel (Bielefeld)
- Roland Speicher (Saarbrücken)
- Hugh Thomas (Fredericton)

- ▶ Hiring strategy supported by faculty and university: strengthen the areas between the CRCs existing main research fields
- ▶ create new perspectives for collaboration and future projects.
- ▶ Vacancies due to retirement or accepted outside offers: immediate or overlapping new appointments, e.g. H. Abels, W.-J. Beyn, C.M. Ringel and T. Zink
- ▶ Deferred retirements for completing a successful grant period: W.- J. Beyn, F. Götze and T. Zink
- ▶ counter offers to W3 positions: Ch. Voll and M. Kaßmann
- ▶ Extension of this policy in CRC 1283. (K.-U. Bux, S. Herr and Chr. Voll)

Name	Position	Year
Hoffmann, Werner	C3	2005
Gentz, Barbara**	W2	2006
Grigor'yan, Alexander	W3	2006
Gähler, Franz	(tenured)	2008
Bux, Kai-Uwe**	W2	2009
Emmrich, Etienne*	W2	2009
Kaßmann, Moritz**	W2	2009
Hornbostel, Jens*	W2	2010
Krause, Henning	W3	2010
Herr, Sebastian	W2	2011
Rollenske, Sönke*	W2	2011
Voll, Christopher**	W2	2011
Baumeister, Barbara	Akad. Oberrätin	2011
Banas, Lubomir	W2	2013
Zhu, Rongchan	W1 junior	2016
Zhu, Xiangchan	W1 junior	2016
Crawley-Boevey, William	W3 Humboldt	2016
Gess, Benjamin	W2, W3	2017 2019
Vial, Charles	W2	2017
Diening, Lars	W3	2017
Hofmanova, Martina	W2 (non-tenured)	2017

*: left

** : stayed with W3

Examples of qualification of young PIs:

H. Kösters (A4)	University of Rostock
A. Haydys (C11)	University of Freiburg
C. Huck (A1)	ZITiS, München
C. Richard (B2)	University of Erlangen
A. Nickel (C7)	Heisenberg Fellowship
F. Merkl (A3)	LMU München
K. Froyshov (C1)	University of Oslo
A. Langer (B5)	University of Exeter
E. Lau (B5)	University of Paderborn, Bielefeld
V. Pakunas (C7)	University of Essen

Bielefeld Postdocs related to CRC 701:

L. Hille (C3)	University of Münster
H. Matzinger (A3)	Georgia Tech
S. Rolles (A3)	LMU München
P. Zeiner (A1)	University Kuala Lumpur
D. Kielak (C8)	ERC Starting Grant 2019

Totals 2005-2017

Preprints: 1163

Guests: 1976

Budget: 23.625.400

Overhead: 4.227.180