

**SCHLOSS DAGSTUHL** Leibniz-Zentrum für Informatik

# **Dagstuhl Annual Report**

January – December 2011

2012



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	Informatics (CWI, Amsterdam, Netherlands) French National Institute for Research in Informatics and Automatic Control (INRIA, Rocquencourt, France) Max Planck Society (MPG), represented by the Max Planck Institute for Informatics of Saarbrücken
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# Dagstuhl Annual Report January – December 2011

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# "Computer Science Up Close and Personal" A few impressions of Dagstuhl's Open House on 18 June 2011

Row 1:

- Presentations on the LCI (left) and current computer science research topics (middle)
- Kids' Kollege with Christoph Igel (right)

Row 2:

• Computing without a computer

Row 3:

- Digital make-up
- Artificial intelligence in retailing
- In the Library: historical books in modern guise

Row 4:

- Digital make-up (left, top)
- Gathering before the main entrance (left, bottom)
- Adventures in computing: learning algorithms the playful way (middle)
- Painting donated by the Foundation from the Octavie exhibition to the Elisabeth Hospital in Wadern (right)

Row 5:

• Exhibition "Octavie de Lasalle von Louisenthal and Schloss Dagstuhl" with paintings and information panels

Row 6:

- Garden patio
- Goodies from the Center's kitchen
- Main entrance to the new building. In the background: construction site of the new guest house.

Photography: Leibniz Center for Informatics (LCI) and Thomas Wiercinski

More on the Open House on page 11 ff.





















### **1.** Leibniz Center for Informatics at Schloss Dagstuhl

#### **1.1.** Stimulating Exchanges in Relaxed Surroundings

The mission of the Leibniz Center for Informatics (LCI) at Schloss Dagstuhl is to promote world-class research in informatics, support leading-edge continuing education and professional development, and promote the exchange of knowledge and findings between the academic community and industry.

Founded in 1990, the Center hosts research seminars at which promising young research scientists are afforded the opportunity of discussing their views and research findings with the international elite of their field in a specific cutting-edge field of informatics. The seminars enable new ideas to be showcased, topical problems to be discussed, and the course to be set for future development in the field.

A proposal is submitted for a seminar or perspectives workshop by a small group of scientists of international standing in the respective field. The Scientific Directorate is responsible for approving the proposals and the participant lists. Participation in these events — for the most part one week in length — is possible by way of personal invitation only by the Center. The Center assumes part of the associated costs in order to enable young, promising scientists and doctoral students to participate.

In keeping with the Center's overall idea and philosophy, lounges and working areas are also featured which invite the visitors to get together in small groups outside of the official conference offerings for connecting one on one or doing work in the research library. The Center has three lecture halls, a number of conference rooms, a comprehensive research library, and 64 rooms with 75 beds. A guest house constructed in 2011 and providing for 71 rooms with 89 beds has enabled the Center's capacity to be increased since January 2012.

In 2011 one or more Dagstuhl Seminars or Dagstuhl Perspectives Workshops were booked at the Center during 45 weeks of the year. Gatherings of smaller workgroups were hosted in parallel to the seminars. The facilities were available for summer schools and other informatics conferences and events during the weeks when they were not being used for Dagstuhl Seminars. In addition, individuals were accommodated for research stays. There is only one condition applicable to all the offerings: They have to be related to informatics.

Schloss Dagstuhl is located in the charming countryside of northern Saarland, in the tri-country region formed by Germany, France and Luxembourg. As they say, location is everything, which is why Schloss Dagstuhl offers a host of possibilities for "getting up close and personal" with nature. Yet Schloss Dagstuhl is also conveniently located, as it is near the Saarbrücken-Trier-Koblenz and Kaiserslautern-Trier autobahns, meaning it can be easily reached from Saarbrücken, Trier and Kaiserslautern in less than an hour.

#### **1.2.** Structure of the Center

The Center is operated as a non-profit organization whose associates include the Gesellschaft for Informatik e.V. (GI, or German Informatics Society), of Bonn, Saarland University, the Technical University of Darmstadt, and the Universities of Frankfurt, Kaiserslautern, Karlsruhe, Stuttgart and Trier. Other associates of the Center include: three research institutes of international renown, i.e. French National Institute for Research in Informatics and Automatic Control (INRIA), of Rocquencourt, France; Dutch National Research Institute for Mathematics and Informatics (CWI), of Amsterdam, Netherlands; and the Max Planck Society (MPG), represented by the Max Planck Institute for Informatics, of Saarbrücken, Germany.

By resolution of the Federal Government–State Commission for Educational Planning and Research Promotion (BLK) in 2005, the Center was included as a research service institution in the joint funding of the German federal and state governments (Blue List). The Center is a member of the Leibniz Association. This was documented towards the outside world in 2008 when the Center officially changed its name from "International Conference and Research Center for Computer Science (IBFI)" to "Leibniz Center for Informatics (LCI)".

The LCI was evaluated for the first time in July of 2009. The findings of the Evaluation Commission of March 2010 showed a positive image and established that the LCI achieves outstanding success in its commitment to its designated task of supporting the international informatics research community by providing a seminar center for academic events.<sup>1</sup>

#### **1.3.** Dagstuhl Bodies

The following five bodies are in charge of the activities offered at the Center (for the body members, cf. Annex 1):

#### Associates' Meeting

The representatives of the Associates' Meeting convene meetings of the Supervisory Board and are responsible for amendments to the articles of incorporation and the admission of other associates.

<sup>&</sup>lt;sup>1</sup> For more information, refer to article of 20 April 2010 in the News section at www.dagstuhl.de.

#### **Supervisory Board**

The Supervisory Board is responsible for ensuring that management complies with the Center's objectives in a meaningful legal and economic manner. It is involved in all essential matters pertaining to research and financial planning.

It is composed of four representatives of the German Informatics Society (GI), one representative each of the three founding universities (Saarland, Karlsruhe, Kaiserslautern), two representatives of the universities that subsequently joined (Darmstadt, Frankfurt, Stuttgart, Trier), and one representative each of the federal government and the two host state governments (Saarland and Rhineland-Palatinate). The members of the Supervisory Board hold office for four full fiscal years. The Supervisory Board convenes meetings of the Scientific Directorate and of members of the Scientific Advisory Board and the Industrial Curatory Board.

#### **Scientific Directorate**

The Scientific Directorate is responsible for the Center's seminar program. It reviews the proposals for the Dagstuhl Seminars and the Dagstuhl Perspectives Workshops and decides whether they merit approval. It reserves the right to approve the focus of topics and the individuals included in the participant group. It also makes recommendations to the Scientific Directorate concerning seminar topics when individual informatics fields are not well represented, and develops new event concepts.

The Scientific Directorate is comprised of one informatics professor from each of the university and research center associate members, and four GI delegates. Of these individuals, two are nominated by the GI's Executive Board and two by the GI's Advisory Board of University Professors (GIBU), which is independent of the Executive Board. The Scientific Directorate is comprised of a total of 14 members. The members and the Scientific Director hold office for three years.

The members elect a Scientific Director from their midst. Professor Reinhard Wilhelm (Saarland University) has been the Center's Scientific Director since its founding.

#### Scientific Advisory Board

The members of the Scientific Advisory Board are internationally diverse. The Board's purpose is to lend critical support in the management of the Center with regard to its scientific orientation and the user orientation of its service offerings, and in policy decisions pertaining to the Center's continued development. Its task is to advise the Supervisory Board and Scientific Directorate in a scientific or subject-matter capacity. Another task is to evaluate the Center's performance and achievements and draft a status report including position paper and recommendations (audit) for the Senate Evaluation Committee of the Leibniz Association. The Board convenes once a year together with the Industrial Curatory Board.

#### **Industrial Curatory Board**

The Industrial Curatory Board performs a transmission function between the Center and the R&D departments and labs of industry. It also has the task of securing the acceptance of the Center by government authorities and industry and, being a promotional organization, expanding the Center's economic base. The members of the Curatory Board support the Center in identifying current R&D topics for seminars and locating attractive organizers in industry.

The Curatory Board is regularly called upon to propose suitable participants for seminars known to it from its activities.

#### 1.4. The Dagstuhl Team

The executive management of the Center is in the hands of its Scientific Director, Prof. Reinhard Wilhelm, and its two Technical Administrative Directors Wolfgang Lorenz and Dr. Christian Lindig. The Center's staff totals 42, many of whom work on a part-time basis. 21 staff members are charged with academic and administrative tasks or overseeing the library and IT systems, and 21 with housekeeping, running the kitchen and resolving maintenance issues involving our guests. The Center employs two second-year trainees. With the exception of three academics who receive third-party funding, all positions are funded under the core budget.

The academic staff supports the seminar organizers, serves the Center's bodies, and tends to the publications of guests. The Center has close ties to the GI's Advisory Board of University Professors (GIBU) through Dr. Marc Herbstritt, a GIBU associate member.

# 1.5. Prof. Reinhard Wilhelm Recipient of the ACM Distinguished Service Award

The Association for Computer Machinery (ACM), the world's largest educational and computing society, named Prof. Reinhard Wilhelm recipient of the Distinguished Service Award in April of 2011 in recognition of his many years of service on the Center's behalf. This distinction is awarded on the basis of value and degree of services to the international computing community.

In so doing, the ACM recognizes Prof. Wilhelm's contributions and endeavors since 1990 in transforming the Center into an informatics venue of international prestige that attracts and inspires scientists throughout the world. The program and infrastructure that he and the Dagstuhl team have established and continuously developed during his term have benefited renowned scientists who have transformed the computing world.

#### 1.6. PR Work and Media Relations

Press releases are a key platform for showcasing current informatics topics in a readily understandable manner and disseminating them. They also serve to make the Center and its concept more well known to a large audience. Press releases and reports appearing in various media that come to the Center's attention are available on the LCI's portal at: http://www.dagstuhl.de/ueber-dagstuhl/presse.

The Center continues to maintain close ties to Computerclub Zwei (cf. http://www.cczwei.de). Dagstuhl will provide interview partners on request and copy for publication on the cczwei website. Thanks to the support of the Saarland Broadcasting Association, Dagstuhl has access to professional reporting equipment that enables broadcast journalists to conduct interviews with seminar participants in digital lossless audio quality.

Dagstuhl has become a port of call for journalists seeking to report on specific computing topics, and on Dagstuhl itself.

In order to encourage young journalists and trainees to report on complex computing topics, Dagstuhl offers a workshop on science journalism every year. In 2011 the workshop took place from 25 to 28 September in parallel with the Dagstuhl Seminar "Public-Key Cryptography", of which several participants were involved in the journalists' practical work.

The Center disseminates news on the Dagstuhl program via social networks such as Twitter (@Dagstuhl) and LinkedIn. Twitter is used primarily to disseminate program announcements. A Friends of Schloss Dagstuhl group is maintained at LinkedIn, whose objective is to support the networking of the participants of the Dagstuhl Seminars. Interesting news items pertaining to Dagstuhl are also disseminated. Membership in the group is by invitation only through Dagstuhl. There are now so many membership requests that approval is subject to proof of participation in a Dagstuhl Seminar. The group currently numbers 367 members.

#### 1.7. Open House on 18 June 2011

The LCI's Open House was held on 18 June 2011 as part of Wadern's historical celebration and town fair ("Waderner Maad"). Everyone was afforded the opportunity to become acquainted with scientists and the fields they work in and to learn something about how innovative computing applications function. There were also presentations on the Dagstuhl concept and historical tours of the manor house and to the Dagstuhl castle ruins.

#### Lectures and demonstrations (\*):

• Excuse me, can you tell me where the (virtual) university is? Kids' Kollege lecture

Priv.- Doz. Dr. Christoph Igel, Centre for e-Learning Technology

Beethoven, Bach, Billion Bytes – Music Meets Computing
 \* Hunting Down Music in the Din of the Internet
 Locating works of music and comparing them: this is not merely a gimmick for music lovers but could revolutionize the way musicians are trained.

Prof. Meinard Müller, Saarland University and MPI for Informatics

- How Computing Helps DJs Jonathan Driedger, Saarland University
- Technologies for the Supermarket of Tomorrow *Prof. Dr. Antonio Krüger, Innovative Retail Laboratory (IRL)* \* Artificial Intelligence in Retailing

An intelligent camera recognizes when a customer is pointing at merchandise or advertising. The computer displays information on a scale for the product selected.

Florian Daiber, Innovative Retail Laboratory (IRL)

• Wireless+Fun: About Wheels of Fortune, High-Speed Trains and Ankle Bracelets

Prof. Holger Hermanns, Saarland University

#### \* Electronic Wheel of Fortune

Sensor networks are composed of wireless minicomputers that are able to detect and measure their surroundings using sensors. *Felix Klein, Tim Ruffling, Tobias Theobald; Holger Hermanns Study Group, Saarland University* 

#### • \* Digital Make-Up

A computer selects the right make-up for a woman's face (captured as a photograph) and shows what applying the make-up would look like.

Kristina Scherbaum and Susanne Böttcher, Saarland University

#### Hands-on activities, presentations and tours:

- Retreat Venue of the Computing Community The Dagstuhl idea and how it has been practised during the first
  - 21 years

Dr. Roswitha Bardohl, LCI

• Adventures in Computing: Computing without a Computer?! In the tasks created by Jens Gallenbacher (TU Darmstadt, http://abenteuer-informatik.de/) participants are invited to learn about algorithms through play and in so doing experience the fascination of this subject.

Dr. Andreas Dolzmann and Simone Schilke, LCI

Computer Science Unplugged
 Computer science and the fundamental ideas behind it can be found everywhere in our day-to-day lives. This is conveyed in a fun manner by the Computer Science Unplugged experiments (http://csunplugged.org/).
 Dr. Marc Herbstritt and Oliver Hoffmann, LCI

 Historical Books in Modern Guise
 Books by and about Gottfried Wilhelm Leibniz printed in a historical edition and available on the iPad Petra Meyer, LCI Research Library

 Minecraft – Build your own world Schloss
 This open world game has enabled Schloss Dagstuhl and the Center to be recreated with Minecraft. Sascha Daeges, Thomas Schillo, Steven Schrot, LCI's IT Department

• Tours through the historical rooms of the manor house and the chapel

Angelika Mueller-v.Brochowski, LCI; Ingrid Schäfer and Ralf Köhl, City of Wadern

# Exhibition "Octavie de Lasalle von Louisenthal and Schloss Dagstuhl"

To commemorate the bicentenary birth of Octavie de Lasalle von Louisenthal, a multifaceted, vibrant exhibition was organized in association with the City of Wadern in the cloister of the new building to celebrate the life and works of this painter baroness. Octavie was equally informed of German and French culture. When considered in the context of the de Lasalle von Louisenthal family, the special appeal of this exhibition lies in its affinity to a venue that is synonymous with an international forum.

Apart from the art works on loan from various collections, the exhibition also included works of Octavie that are at home in Dagstuhl, in addition to the chapel painted by her and the stations of the cross. The flair of the environs of the former residence of the de Lasalle family and the "painter's cottage" on the castle hill could also be explored during a walk.

Curator of the exhibit: Dr. Thomas Wiercinski, art historian

### **1.8.** Sponsors and Donors of the Center

In addition to the funding from the German federal government and state governments, the Center also receives donations and contributions from other sources. During 2011 the Informatics Research Library received book donations from the following publishers:

- Eurographics Association
- Oldenbourg
- O'Reilly
- SIAM Society for Industrial and Applied Mathematics
- Springer-Verlag

The library also receives numerous book donations from seminar participants. The Center is grateful for donations of author's copies, particularly those of major works which are out of print. The Center received a total of 1,002 volumes during the year under review as donations from publishing houses and seminar participants.

#### **1.9.** Schloss Dagstuhl Informatics Center Foundation

The Leibniz Center for Informatics (LCI) is recognized by the German tax authorities as a non-profit organization. Through the end of 2005, the Center was financed jointly by the Saarland and Rhineland-Palatinate state governments, this financing being supplemented by donations from various sponsors in industry and by publishing houses. The Center has received federal and state funding since 2006.

The financing regulations imposed on the Center by public funding did not allow for much leeway in the Center's fiscal planning and expenditure; this led to the establishment of the Schloss Dagstuhl Informatics Center Foundation, making it possible to react flexibly to unforeseen challenges.

The sole purpose of the Foundation is to promote the Center's objectives as stated in its articles of incorporation, in particular by providing funding for the promotion of young scientists and for the Center's Informatics Research Library from income generated by the Foundation's assets and from donations and contributions of third parties earmarked for this purpose. Young researchers are fostered by grants for participation in seminars organized by the Center, for research stays at Schloss Dagstuhl, or for temporary projects.

Dagstuhl can be supported via the Foundation in various manners:

#### Contributing member, individual membership

The Foundation's contributing members are the exclusive recipients of an annual scientific publication detailing the results and findings of the Dagstuhl Seminars, in addition to this Annual Report including the program of the Dagstuhl Seminars and other events hosted at the Center. Members can determine the amount of their annual membership fee themselves, however they should commit to a minimum of  $\notin 60$ .

#### Contributing member, corporate/institutional membership

Minimum annual membership fee:  $\notin 600$  for educational institutions,  $\notin 1,200$  for corporate and other members.

#### Sponsoring of individual events

The Center provides a forum enabling companies to partake in its high renown and events. A donation can be allocated to a specific Dagstuhl Seminar or Dagstuhl Perspectives Workshop. Sizable contributions are given honorable mention via the Internet and other media (example: http://www.dagstuhl.de/11151).

The Foundation received donations from companies and other organizations for the following seminars in 2011:

#### Microsoft Research, Cambridge, UK: <u>Formal Methods in Molecular Biology</u>

(11151, 10.04. – 15.04.2011)

Rainer Breitling (University of Glasgow, UK), Frank J. Bruggeman (CWI – Amsterdam, Netherlands), Corrado Priami (Microsoft Research – University of Trento, Italy), Adelinde M. Uhrmacher (University of Rostock, Germany)

#### **Google London, UK:**

# **Perspectives Workshop: The Future of Research Communication** (11331, 15.08. – 18.08. 2011)

Timothy W. Clark (Mass General Hospital & Harvard Medical School, USA), Anita De Waard (Elsevier Labs – Jericho VT, USA), Ivan Herman (CWI – Amsterdam, Netherlands), Eduard H. Hovy (University of Southern California – Marina del Rey CA, USA)

#### **Corporate Donations**

The Foundation continues to be dependent on the generous contributions and donations of companies, as the Foundation's assets have not yet reached the level as provided for in its articles of incorporation ( $\notin$ 500,000). The Foundation is recognized by the German tax authorities as a non-profit organization, meaning that contributions and donations to German organizations are tax-deductible.

For more information on the Foundation, please refer to http://www.dagstuhl.de/ueber-dagstuhl/stiftung-foerderung/.

## 2. Events at Dagstuhl

The Center fulfills its designated tasks by organizing and hosting scientific seminars, and by providing the facilities offered by the Center for conducting various informatics conferences and working retreats.

#### 2.1. Dagstuhl Seminars

The Dagstuhl Seminars are accorded top priority in the Center's annual program as they are a key instrument for promoting research. The Dagstuhl Seminar program for the year under review (2011) is to be found in Annex 2. An up-to-the-minute program covering the coming 18 months is available on the Dagstuhl website. The spectrum of the seminar topics provides an excellent if not comprehensive view of the areas currently under discussion in the international informatics arena. The topics of the seminars planned for 2011 and 2012 point to the following future trends:

- Data Structures, Algorithms, Complexity
- Cryptography, Security, Data Protection
- Semantics, Logic, Verification
- Modeling and Simulation
- Software Engineering

Dagstuhl's distinguishing accomplishment is the establishment of pioneering, interdisciplinary seminars that have virtually become institutions unto themselves. Many topics dealt with in depth at Dagstuhl subsequently develop into highly active research fields, resulting in some cases in DFG priority programs and other grant and funding programs.

Various Dagstuhl Seminars have succeeded in bringing groups of researchers and scholars of various areas and disciplines together for the first time. To be sure, these individuals were involved in research on associated issues, methods and techniques, however they hadn't been able to benefit from a common discussion platform. This applies in particular to disciplines outside of the field of informatics. Key R&D areas for which in-depth collaboration with informatics specialists was initiated and consolidated at Dagstuhl: biology (since 1992) and sports (since 2006). Topical interdisciplinary topics include: social networks, e-democracy, logistics and music. These initiatives received special mention in the evaluation conducted of the LCI.

#### 2.2. Dagstuhl Perspectives Workshops

The Dagstuhl Seminars are supplemented by Dagstuhl Perspectives Workshops, which focus on subfields or are interdisciplinary in nature, thus covering more than one informatics field. These workshops are designed to generate recommendations for research donors and sponsors and give impetus to research projects and Dagstuhl Seminars for key informatics areas.

The workshops are designed to

- contribute to an analysis of the present status of a field
- tap into potentials and development perspectives of existing fields of research
- detect shortcomings and problematic developments, particularly in the German research landscape
- show research directions
- trigger innovation processes

For the most part, the workshop participants are 25–30 scientists of international standing in their respective fields who cover all subfields and sub-aspects. Instead of reporting from current research results, the focus is on presenting position papers which outline the current status in the field, open issues, shortcomings and problematic developments, and promising directions. The results of the in-depth discussions are presented in a manifesto detailing the open issues and possible research perspectives for the coming 5-10 years. The Center coordinates the targeted dissemination of this manifesto as research policy impulses to German and other European research donors and sponsors (EU, German Federal Ministry of Education and Research, DFG, etc.).

Abstracts of the manifestos are regularly presented in a forum of *Informatik-Spektrum* (published by Springer).

The following Dagstuhl Perspectives Workshop were conducted in 2011:

Online Privacy: Towards Informational Self-Determination on the Internet http://www.dagstuhl.de/11061

• *The Future of Research Communication* http://www.dagstuhl.de/11331

For more information on the Dagstuhl Perspectives Workshops and their results, see: http://www.dagstuhl.de/pw-list

#### 2.3. Other Events

Other events are hosted at the Center apart from the Dagstuhl Seminars and Dagstuhl Perspectives Workshop, i.e.

• GI-Dagstuhl seminars, bringing together young scholars for a specific topic. They are conducted by the German Informatics Society (GI) in association with the LCI.

- Summer schools, continuing education offerings of the German Informatics Society (GI) and German Informatics Academy (DIA), CPD for teachers and instructors, education and training of young journalists and trainees.
- Departmental conferences of graduate colleges, GI specialist groups and other academic and industrial working groups
- A small number of international informatics conferences

#### 2.4. Research Stays

Many people regularly take advantage of Dagstuhl's offer of using the Center for research stays. In most cases these are individuals who wish to use the Center as a retreat for several weeks in order to devote themselves to their studies undisturbed. In 2011, four research guests availed themselves of this opportunity.

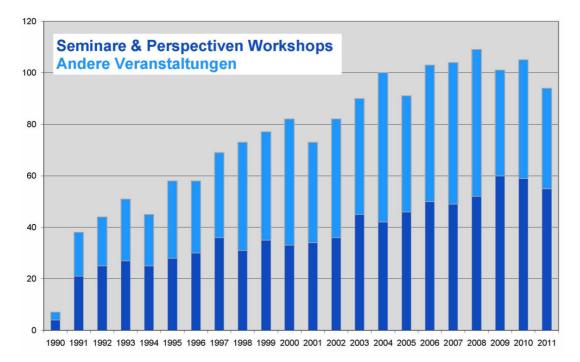
#### 2.5. Utilization of the Center

94 events with ca. 2,900 guests were featured in 2011, making for ca. 10,833 overnight stays and a slightly lower utilization rate as compared to previous years. This pertains to working retreats and CPD events in particular; their average length was shorter and there were fewer participants. With 80 proposals received in 2011, the Dagstuhl Seminars and Perspectives Workshops continue to be most popular events. Dates for three-day events are increasingly being offered and the number of participants reduced to 30 in some cases, enabling two events to be organized in parallel.

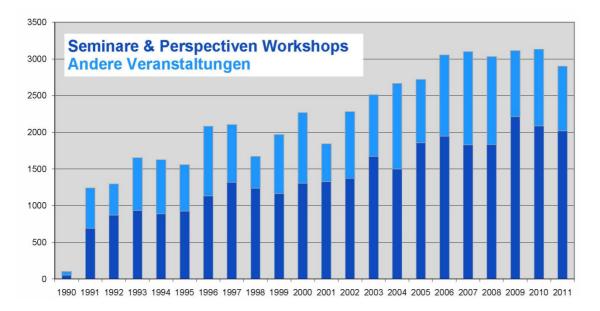
Working retreats generally use this event format. The result is that three or more events take place in parallel and in sequence during many weeks. The weekends were kept free in 2011, as well as two weeks in August and at the end of the year, this time being required for maintenance work to building facilities and administrative work. Apart from a few isolated periods and a series of as yet unbooked parallel event slots for groups of up to 20 participants, the Center is booked up through December of 2013 (status: February 2012).

The following charts show the increase in usage figures according to events and participants since the Center was founded, along with a breakdown according to the different event types. For more particulars on the various events in 2011 (date, title, organizer, etc.), please refer to Annex 2. Dagstuhl's website contains the program of upcoming events and further information and material on all events past, present and future, e.g. objective, participant list, concluding report and, in some cases, references to in-depth information.

#### **Events**



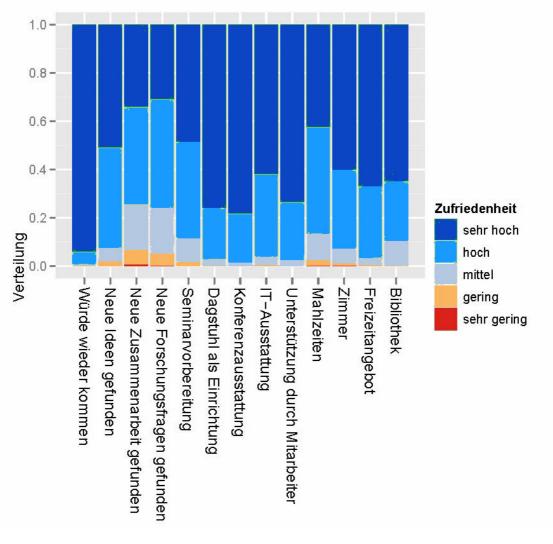
#### **Participants**



#### 2.6. Quality Assurance

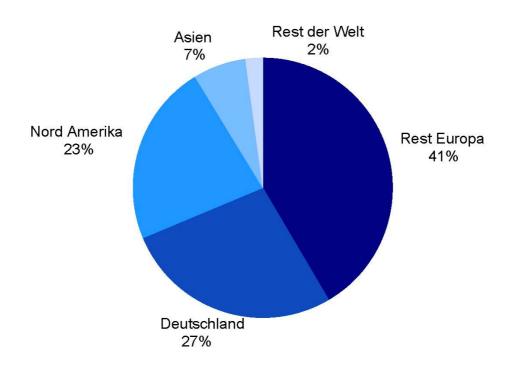
The Center conducts surveys of the participants of the Dagstuhl Seminar and Dagstuhl Perspectives Workshop, the questionnaire containing questions about their satisfaction with the content of the event and the organization of their visit. The results of each questionnaire are made available to all of the Center's departments every week via e-mail, this enabling a quick response to issues and requests. At the same time the anonymized results of the content questions are made available to the seminar participants via e-mail, typically in the week following their stay at the Center. This enables the organizers to receive feedback on how the seminar went and tips for organizing future seminars.

The chart below shows the satisfaction of these participants in 2011 with regard to selected aspects of their stay. The results were compiled from 1,005 questionnaires, representing the responses of 51% of all participants. These excellent results are not only a recognition of the Center's past work but also pose a challenge to its future work.



#### 2.7. Event Participants

At 73% the proportion of foreign guests in Dagstuhl Seminars was extremely high again during 2011 (European countries except for Germany: 41%). The following chart shows the distribution according to area of origin of our Dagstuhl Seminar and Dagstuhl Perspectives Workshop guests in 2011. For a detailed breakdown of the countries of origin of all the participants of Dagstuhl events, please refer to Annex 3.



To put it mildly, Dagstuhl Seminar and Dagstuhl Perspectives Workshops participants are enthusiastic about the Center, i.e. they are quite taken with the idea and concept of promoting informatics research in this manner, in addition to being "enchanted" by the quaint manor house, the ambience created by the Center, the research and discussion opportunities, not to mention the Center's surroundings, and the commitment and dedication of its personnel.

Annex 4 contains a number of excerpts from written reports and thank-you letters received by the Center.

### 3. Dagstuhl Publishing

In contrast to traditional conferences, the seminars at Schloss Dagstuhl are primarily designed as an opportunity to develop new ideas instead of presenting findings or final results. This means that a seminar is not expected to lead immediately to scientific publications. High-caliber publications that germinate in Dagstuhl don't generally come to fruition until two to three years later. Nonetheless the Center endeavors to document the immediate scientific results of its events. This led to the establishment of the *Dagstuhl Reports* periodical series in 2011, whose monthly issues document the Dagstuhl Seminars and Dagstuhl Perspectives Workshops of a month. This new series supersedes the *Dagstuhl Seminar Proceedings*. The difference between the two is a final report by the organizers and a collection of brief summaries of the lectures are primarily featured instead.

Publishing comprehensive research articles related to a Dagstuhl Seminar or a Dagstuhl Perspectives Workshop is now enabled by the *Dagstuhl Follow-Ups* book series and the *Dagstuhl Preprint Archive* (in association with arXiv/CoRR). The journal *Dagstuhl Manifestos* was also created for Dagstuhl Perspectives Workshops in order to provide a central publication platform for manifestos, whose drafting is an established component of each Dagstuhl Perspectives Workshop.

#### **3.1.** Publications – Facts & Figures

In the *Dagstuhl Reports* series, 10 issues with a total of 44 articles were published for 2011. Each issue is supplemented with a front matter page containing a table of contents and outputted as a PDF file containing all the articles of the issue.

Two manifestos were published in *Dagstuhl Manifestos* in 2011 (of events 10482 and 11061). The editorial deadline for the 2011 issue was the end of February 2012 in order to include the publication of the manifesto of 11331 there.

Two books have been published so far in the *Dagstuhl Follow-Ups* series, the first one in 2010, and the second one in 2011. In order to publish in this series a separate proposal has to be submitted by the seminar organizers that is reviewed by the Scientific Directorate. Three proposals were submitted in 2011 (10452, 11041 and 12111), all three of which were approved. Publication of these volumes will take place in 2012 and 2013. Book projects generally require an extended lead time: 1–2 years from the submission of the proposal until publication is not uncommon.

Due to its international reputation and independent status, the Center received queries pertaining to the electronic publication of conference

volumes already in 2006. They document the scientific results of conferences that did not take place at Dagstuhl and are traditionally published by (commercial) publishing houses. In order to cater to this demand, the Center created the *LIPIcs* and *OASIcs* publication series, in which the following volumes were published in 2011:

Series	Volume no.	Number of contri- butions	Title
LIPIcs	13	45	IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS'11)
LIPIcs	12	43	Computer Science Logic (CSL'11) – 25th International Workshop/20th Annual Conference of the EACSL
LIPIcs	11	33	Technical Communications of the 27th International Conference on Logic Programming (ICLP'11)
LIPIcs	10	32	22nd International Conference on Rewriting Techniques and Applications (RTA'11)
LIPIcs	9	59	28th International Symposium on Theoretical Aspects of Computer Science (STACS'11)
OASIcs	20	14	11th Workshop on Algorithmic Approaches for Transportation Modelling, Optimization, and Systems (ATMOS'11)
OASIcs	19	14	Visualization of Large and Unstructured Data Sets – Applications in Geospatial Planning, Modeling and Engineering (IRTG 1131 Workshop)
OASIcs	18	8	Bringing Theory to Practice: Predictability and Performance in Embedded Systems (PPES'11)
OASIcs	17	29	17th GI/ITG Conference on Communication in Distributed Systems (KiVS'11)
OASIcs	16	18	Sixth Doctoral Workshop on Mathematical and Engineering Methods in Computer Science (MEMICS'10) – Selected Papers

Publication in the *LIPIcs* and *OASIcs* series is subject to a fee: A lump sum of  $\notin 250$  is currently charged for publishing a volume in *OASIcs*; for *LIPIcs* costs range between  $\notin 500$  and  $\notin 750$  depending on the number of articles in a volume. The costs are generally assumed by the conference organizers. The Dagstuhl Publishing items feature a number of characteristics that differentiate them from other web publications and contribute to the professional image provided by the Dagstuhl Publishing imprint:

- Distinctive layout possessing substantial recognition value.
- Brand creation by virtue of logos (figurative and word marks).
- High-quality text layout and maintenance of metadata.
- Registration of digital object identifiers (DOIs) (in association with the German National Library of Science and Technology, University Library of Hannover).
- Economical, equitably-priced service offerings for publishing conference volumes while providing for a qualitative selection.

During the year under review, Dagstuhl Publishing generated revenues of  $\notin 4,100$  (net) through its publication services.

#### 3.2. Back-end: DROPS

All items published by the Center are administered via the *Dagstuhl Research Online Publication Server (DROPS)*. The general guidelines applicable to online publications (*Dublin Core* initiative)<sup>1</sup> are adhered to, meaning that all the requisite metadata on each publication is stored, thus ensuring availability in the long term. This enables the online publications to be cited and be accessible by a wide readership. The technical basis for this is an adapted version of the OPUS system.<sup>2</sup>

For more information on DROPS, please refer to: dagstuhl.de/drops/.

#### 3.3. Long-term Archival

All publications are submitted to the German National Library (D-NB) for (digital) long-term archival.

#### 3.4. Indexing

All series are listed in the DBLP Computer Science Bibliography. See also:

- http://dblp.uni-trier.de/db/journals/dagstuhl-reports/index.html
- http://dblp.uni-trier.de/db/journals/dagstuhl-manifestos/index.html
- http://dblp.uni-trier.de/db/series/dfu/index.html
- http://dblp.uni-trier.de/db/series/oasics/index.html
- http://dblp.uni-trier.de/db/series/lipics/index.html

The LIPIcs volumes are submitted to the Conference Proceedings Citation Index (CPCI), maintained by the Thomson Reuters media group. In the future the CPCI is to offer similar bibliometric evaluations such as the "impact factor" of the Journal Citation Index. Yet the CPCI submission

<sup>&</sup>lt;sup>1</sup> http://dublincore.org/

<sup>&</sup>lt;sup>2</sup> http://elib.uni-stuttgart.de/opus/doku/about.php

procedure is very non-transparent and provides no feedback on inclusion in the index.

The *LIPIcs* and *OASIcs* series are listed in the *Directory of Open Access Journals (DOAJ)*:

- http://www.doaj.org/doaj?func=openurl&genre=journal&issn=2190 6807
- http://www.doaj.org/doaj?func=openurl&genre=journal&issn=1868 8969

#### 3.5. Mirroring

In order to prevent data loss, two cooperative ventures were initiated in 2010 for mirroring the content of the DROPS publication server:

• **io-port.net:** The informatics publication portal organized under the auspices of io-port.net, FIZ Karlsruhe – Leibniz Institute for Information Infrastructure, mirrors all volumes of the LIPIcs series and links on the home page directly to the volumes mirrored.

For more information, see: http://www.io-port.net (Digital Library/LIPIcs). In 2011 the existing affiliation was consolidated by a memorandum of understanding. There are plans to integrate Dagstuhl publications more strongly in the products of FIZ Karlsruhe (e.g. *Zentralblatt MATH*, the world's most comprehensive reference database in mathematical research), however without restricting unfettered access to publications).

• **SunSite Central Europe:** The Sun server park located at the Aachen University of Technology and operated under the guidance of Prof. Matthias Jarke offers a home for numerous software archives and publications. All the DROPS assets are now mirrored at regular intervals on the Aachen SunSite.

#### **3.6.** Open Access

Access to the documents published via DROPS is free of charge for readers in keeping with the open access idea, which fosters unimpeded access to scientific publications. By signing the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, the Leibniz Association, and the Center as a member of the Association, are following the example set by a large number of key international institutions for R&D and research promotion. The vision jointly pursued by them is to disseminate knowledge so that it can be easily accessed throughout the world without any financial obstacles being imposed. The Internet enables scientific work to be published without charging a fee for reading these publications.

# 4. LCI+DBLP Project: Consolidation of the Bibliometric Basis in Informatics

#### 4.1. Conference Facilities

Although substantial funding flows into R&D, decision-makers sometimes find it difficult to identify promising research projects. This comes as no surprise in view of the immense complexity and specialization of scientific fields. The documentation of research work is instrumental in this context for identifying successful research. However, the publication culture in computer science cannot be gauged using traditional methods. In a collaborative venture the Center and the University of Trier have come to the aid of the computing community by way of the DBLP Computer Science Bibliography, representing a consolidation of the open source literature database. This project is financed by the Joint Initiative for Research and Innovation of the Leibniz Association, which evaluates and accepts or rejects project applications via the Senate Competition Committee. The LCI+DBLP project is receiving funding for two years (June 2011 to May 2013); it comprises two full-time positions in addition to materials/supplies. Funding is supplemented by a donation of the Klaus Tschira Foundation (€120,000 for two years), through which another fulltime position can be financed (from 2012), this position to focus in particular on the evaluation of conferences and journals.

#### 4.2. Enhancing Cataloguing and Processing Efficiency

The DBLP database records computer science literature at the level of individual contributions. In selecting data sources, the DBLP concentrates on publishing houses and digital libraries. This data has been captured over a period of many years, with manual work comprising a sizable share of the effort involved. Although this has resulted in an acknowledged recognized high quality of data assets, it represents a substantial amount of labor.

This circumstance led to the development by Oliver Hoffmann of software in completion of his graduate degree thesis that collects the raw bibliographic data of the websites of scientific publishers and digital libraries. The method employed is similar to that used by a search engine like Google that employs crawlers to automatically comb through webpages and prepare the content for indexing. This software has undergone continuous further development and enhancement in the project and is now an integral component of the workflow involving the cataloguing of data. To be sure, final quality assurance and error resolution are still done by hand for the most part. Thanks to the semi-automation of data capturing, cataloguing efficiency has been boosted substantially. From May 2011 to the end of December 2011 data assets were increased by 199,827 to a total 1,842,526 entries. On the whole, data assets grew by 308,643 data records in 2011.

#### 4.3. Directory of All Conferences and Journals

All conferences and journals catalogued in the DBLP database can be located by way of a keyword index. To date this has been maintained manually: newly catalogued series have had to be entered under the relevant keywords. This was not only laborious but error-prone as well: if an entry was overlooked, it could not be located via the index. In the course of systematizing data capturing the possibility was created of having this index generated automatically. Keywords under which a journal is to be catalogued can be conveniently selected in a central file. Sorting of entries and creating the webpages is done by the software.

Another index by publisher was created enabling the journals of major publishers or professional associations and societies that have been catalogued to be viewed. This increases transparency and has been shown to be quite useful in negotiation with the respective organizations.

#### 4.4. Inclusion of the Center's Research Library in the DBLP

One goal of the project is improving the cataloguing of monographs and collected volumes. One of the first steps was the integration of the collection of books contained in the Center's research library. To this end, assets amounting to 7,583 books were exported from the library's catalogue and integrated in the DBLP database. By performing quality assurance manually, errors in the library's data assets were detected and remedied. Although the administration of these data assets had been meticulous, numerous corrections and addenda had to be performed. Apart from expanding the DBLP database, this also enabled the catalogue assets of the Center's research library to be enhanced.

#### 4.5. Institutions as Entities in the DBLP

Efforts have been commenced to catalogue research institutions as entities in the DBLP database. The goal of this is to enable the creation of individual views for institutions and cross-linking between authors and institutions. This is designed to enable bibliographic and bibliometric analyses to be conducted at the institutional level. The data collected to date extends to all member and guest institutions of the German Council of Informatics Departments (FTI), and a series of the most significant international institutions (currently 8,965 individuals in 169 institutions).

#### 4.6. Integration of External Rankings

Due to its limited resources the DBLP database can accommodate only part of all journal, conference and workshop series. When capturing a new publication series the question of the series' priority is always posed. This is why the CAPES (http://www.capes.gov.br/) and CORE (http://core.edu.au/) ranking lists for conferences and journals have been integrated in the back-end data assets. These rankings are designed to serve as an aid until a dedicated bibliometric infrastructure can be established.

#### 4.7. Workflow Management & Help Desk System

A professional workflow management application is to be established in 2012 in order to cater to the growth in the Dagstuhl team and to streamline work processes. To this end, the Center succeeded in procuring a JIRA license free of charge in December of 2011. The system is currently being set up.

DBLP regularly receives e-mails from publishers, editors or authors requesting that data be entered or modified. Some publishers already provide metadata of new publications in a structured input format. It used to be that there was a considerable delay in responding to e-mails like these or they weren't responded to at all. Although errors are corrected promptly, notifying the sender to this effect was often dispensed with due to time constraints. Consequently, the possibilities offered by the workflow management system are to be utilized to administer queries of this type in a coordinated manner. The senders are to receive feedback that their data has been entered or the reasons explained why this wasn't possible. Senders reporting an error are to receive a short message indicating that their correction has been entered. As a consequence this will enhance transparency with regard to recording data while underscoring the integrity of the DBLP. Senders will also receive positive signals that are designed to motivate them to actively aid in expanding and improving data assets in the future.

#### 4.8. Error Report Portal

A web-based portal system has been set up in collaboration with the Databases and Information Systems chair of the University of Trier for submitting error reports. This system is designed to enable DBLP users to report errors and inconsistencies in data assets in an easy and convenient manner. The error reports generated in this manner are intended to provide sufficient information so as to enable changes to be made to data assets in a semi-automated manner. Plans have also been made to integrate this with the workflow management system. The system is currently undergoing an internal evaluation.

#### 4.9. Standardized XML Format for the Submission of Data

In the past new data was submitted to the DBLP in many forms and varying quality. This frequently resulted in more work having to be invested in the entry of new data. A new XML format has been specified for data submissions in order to simplify and standardize this process. The new format is currently undergoing testing with individual selected data providers. In the long term the submission of data is to also be supported by a portal system so that problems in the data submitted can be detected early on and remedied.

#### 4.10. Networking of Data Providers

Maintaining contact with publishers, societies and professional associations is necessary in order to keep abreast of new publications and gain access to bibliographic metadata as early as possible. In many cases publishers have proven to be continuous suppliers of data, an ideal situation. Consequently an effort is being made to establish or expand contacts with publishers in a targeted manner. The following publishers are particularly noteworthy in this connection:

#### • Springer Science+Business Media

Springer has been supplying the DBLP database with metadata to all new publications since May of 2011. The data is transferred to the DBLP on a daily basis.

• IEEE

The Center has succeeded in getting IEEE to provide data to the DBLP on a regular basis since October of 2011. The DBLP receives all the newly catalogued items of the IEEE Xplore digital library on a weekly basis.

#### • IOS

Thanks to a collaborative arrangement with IOS, the data of numerous journals has been supplemented retrospectively.

#### • IGI Global

Almost the entire publishing catalog of IGI Global has been integrated in the DBLP.

#### • IFIP

Preparations and arrangements have been made to integrate the future IFIP digital library in the DBLP and to update it on a continuous basis.

#### 4.11. Establishment of Bodies for DBLP Guidance

A DBLP Advisory Board was established in November of 2011 under the umbrella of the LCI to support the work of the DBLP and provide scientific oversight of the data assets. In the process ten renowned figures from various computer science disciplines were attracted as board members. The Advisory Board's tasks extend to the following in particular:

- defining guidelines, standards and priorities governing the inclusion of data in the DBLP,
- monitoring the quality of the content of the database,
- supporting the DBLP by providing expertise, and
- representing the DBLP in the scientific community.

Members of the DBLP Advisory Board:

- Andreas Butz (Media Informatics and Human-Machine Interaction)
- Hannah Bast (Algorithms and Data Structures)
- Hans-Peter Lenhof (Bioinformatics)
- Mila Majster-Cederbaum (Complex Systems)
- Oliver Günther (Information Systems)
- Otto Spaniol (Communication and Distributed Systems)
- Rüdiger Dillmann (Humanoids and Intelligence Systems)
- Rüdiger Reischuk (Theoretical Computer Science)

Spokesperson of the DBLP Advisory Board: Hannah Bast.

## 5. Offerings for Dagstuhl's Guests

#### 5.1. Conference Facilities

The Center has three lecture halls with a seating capacity of 25 to 60 each, in addition to several conference rooms.

The lecture halls feature Internet access in addition to state-of-the-art presentation equipment like projectors to which laptops, PCs and video equipment can be connected. These facilities not only enable talks and papers to be presented in an optimal manner but also permit online demonstrations of active and distributed systems to be given to large audiences. An audio system and telephone and video conference equipment are also available.

#### 5.2. Computers and Networking

#### Hardware

The computer equipment pool available to guests consists of several thin clients, Apple computers and the newly added zero clients, which enable access to virtual machines of their own. Several printers are also available.

#### Wi-Fi

A Wi-Fi network or wireless LAN is set up in the old building and in the guest rooms of the new building, enabling these areas to be networked and provided with Internet access for guests with laptops. The Wi-Fi network also extends to the library and some of the function rooms in the old building, providing for a large number of laptop places featuring Internet access. Researching the library's online catalogue can be conveniently done from one's own laptop.

#### Dedicated Link to the German Research Network

The LCI has two independent dedicated links to the German Research Network (DFN). The main link features a bandwidth of 100 Mbit/s, the ancillary link being operated with a bandwidth of 20 Mbit/s. The ancillary link serves as a back-up to sustain operation in the event that the main link should go down.

The LCI's IT Department again has an IT specialist trainee since August of 2010. This vocational training program lasts three years and enables the trainee to specialize in system integration.

#### 5.3. Research Library

The Research Library is one of the Center's most impressive offerings. Thanks to the startup financing by the Volkswagen Foundation and numerous book donations of publishing houses and seminar participants, it numbers among Germany's key informatics research libraries.

The library collects current research literature on informatics topics for the respective seminars, primarily in English. As of 31 December 2011, the library's assets totaled 58,394 bibliographic units, all of which are contained in the online catalog. One distinguishing feature is the Center's impressive holdings of journals and periodicals, almost all of which are in electronic form. Apart from the subscribed journals, the library also provides access to several thousand other electronic journals and journal archives via the DFG-funded national and alliance licenses.

The literature is arranged on four levels in an attractive library tower, which also offers a large number of recesses for quiet study and research. Being a reference library, it is at the disposal of the Dagstuhl Seminar participants 24/7 for their research work on site. A total of five workstations are available to the users of the library. External scholars can also use the library provided they register beforehand.

In order to support informatics research in Germany and throughout the world, the Center's entire holdings of periodicals are also made available to other libraries, particularly by way of inter-library loans. The library's entire holdings of journals and periodicals are additionally listed in the periodicals database and the digital library. The library is a member of LITexpress, the Virtual Library of Rhineland-Palatinate, Saarland and the German-speaking community of Belgium, a media loan service for the citizens of these three areas. The library's archive items in particular are designed to be made available for loan.

The library also regularly arranges comprehensive book exhibits. Every week all the books authored by the participants of the current Dagstuhl Seminar which are available in the library are put out on display on the first floor (one level up from the ground floor). The authors are also requested to sign their books. If desired, book exhibits on a particular topic are also put together by the organizers. In addition, all book donations received from publishers are exhibited separately and the exhibits regularly updated. This service is highly appreciated by the Center's guests and publishers alike.

The following can be accessed via the library's webpage: on-line catalogue, journal list with access to the journals available online, in addition to other information offerings.

See: http://www.dagstuhl.de/de/library/

#### 5.4. Internet Offerings

In keeping with the Center's philosophy, its Internet offerings are not only available to the guests at Dagstuhl but to netizens throughout the world. Objectives and content:

- Dissemination of general information on the Center, e.g. concept, program, particulars pertaining to submitting proposals, the Foundation.
- Offering participants travel information on how to get to the Center (site plan, train and bus schedules, taxi services, etc.).
- Presenting the Research Library along with its offerings and resources and enabling research in the Dagstuhl Library catalogue.
- Provision of information on seminars and events (e.g. seminar objectives, scientists from whom proposals have been accepted, publications).
- Providing a platform for exchanging materials among the seminar participants.

The web server administers the content using the Typo3 CMS (freeware). Apart from static pages — almost all of which are in German and English — dynamic pages are also offered which are generated by the Center's proprietary software. Thus, each seminar has a dynamically generated page of its own featuring links to a motivation text, list of participants, publications, etc. These pages also offer the participants a platform where they can upload and administer material on their seminar presentation (slides, documents).

#### 5.5. Seminar Materials

The seminar participants have the option of storing materials pertaining to their presentation on the Dagstuhl server via the seminar's webpage. This procedure enables summaries of lectures, presentations or reports to be made available to all seminar participants. This materials webpage supports the organizers in developing the seminar's presentation program. The following items can also be uploaded: associated documentation like seminar syllabuses, discussion results, tutorial scripts, reports of openproblem sessions, etc. The documents are drafts of sorts and can be modified, supplemented or deleted by the participants at any time.

Example: http://www.dagstuhl.de/11371/Materials/

#### 5.6. Art

#### "Dagstuhl Gallery"

Exhibitions of artists are regularly organized in the cloister of the new building. The spacious surroundings and excellent lighting provide for striking contrasts between day and night, thus offering the artists an excellent venue to exhibit their work. Compliments are frequently heard with regard to the fascinating atmosphere created by the art offerings. They provide an intriguing juxtaposition to the otherwise "ascetic" nature of the new building.

The following exhibitions were organized in 2011:

#### Exhibits during 2011:

16.11. - 17.03.2011

*Die Klare Linie im Untergrund* ["Underground Maps Unravelled"] What does information design achieve?

Exhibition of Maxwell Roberts, University of Essex, participant of seminar 10461 "Schematization in Cartography, Visualization, and Computational Geometry"

21.03. - 03.06.2011

Paintings of Irene Zaharoff, Vienna, Austria

18.06. - 22.07.2011

Octavie de Lasalle von Louisenthal and Schloss Dagstuhl Centenary Exhibition in Association with the City of Wadern Curator: Dr. Thomas Wiercinski

09.08. - 12.10.2011

Paintings of Emanuela Assenza, Hamburg-Harburg, Germany

For artist's profiles, portfolios, concepts of the individual exhibitions, please refer to: http://www.dagstuhl.de/ueber-dagstuhl/kunst/.

#### Purchasing of art through donations

Dagstuhl's website contains a page featuring an Internet gallery enabling participants, individuals, and groups to make contributions to Dagstuhl for art donations. The works of art are featured on the Internet, with donations being made by acquiring shares at affordable prices. As soon as a picture is fully subscribed for, the donors are asked to pay in the value of the shares subscribed by them, this enabling the art item to be purchased. This procedure provides an incentive for the donors as they are not only mentioned in Dagstuhl's Internet gallery but are also mentioned on the art item itself. It is also beneficial to the Center as the Center is able to purchase works of art from the artists arranging exhibitions there. Access via: http://www.dagstuhl.de/ueber-dagstuhl/kunst/

We would like to take this opportunity to thank all those who have made art donations.



"Self-portrait" of Octavie de Lasalle von Louisenthal on her historical easel as featured on Open House Day. Thanks to a private donation the Center was able to purchase this portrait.

#### 5.7. Ambience

The participants typically describe the atmosphere at Schloss Dagstuhl as being surprisingly pleasant and instrumental in promoting valuable work and communication between the guests. Former participants frequently mention fond memories of the pleasant evenings spent in the beautiful rooms of the manor house and making music in the Baroque Music Room.

The leisure activities offered in the Center have been chosen so as to promote communication among the participants. Apart from the music room featuring various instruments and sheet music, the Center also has a poolroom and a recreation room in the basement providing for games like pool and table football in addition to gym equipment. The following is available in summer: sports grounds fitted with a net, boules in the yard and mountain bikes.

#### 5.8. Childcare Assistance

Many of our international guests would like to bring along their small children and older kids during their stay at the Center since they would otherwise be unable to take part in the events due to a lack of childcare options at home. In order to promote family friendliness the Center offers its guests experienced childcare help during the lecture and presentation periods.

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# 1. Dagstuhl Bodies

(Status: February 2012)

# **Supervisory Board**

# **Representatives of the Associates:**

- Prof. Alejandro P. Buchmann Ph.D., TU Darmstadt Representative of the Technical University of Darmstadt
- Dr. Peter Federer, Gesellschaft für Informatik e.V. (GI), Bonn GI representative
- Nominated: Prof. Dr. Oliver Günther, Humboldt University of Berlin GI representative
- Prof. Dr.-Ing. Dr. h.c. Theo Härder, Technical University of Kaiserslautern Representative of the Technical University of Kaiserslautern
- Prof. Dr. Stefan Jähnichen, Technical University of Berlin, Fhg FIRST GI representative Chairman of the Supervisory Board and the Associates' Meeting
- Prof. Dr. phil. habil. Volker Linneweber, Saarland University Representative of Saarland University
- Prof. Dr. Erhard Plödereder, University of Stuttgart Representative of the University of Stuttgart
- Prof. Dr. Peter H. Schmitt, Karlsruhe Institute of Technology Representative of the Karlsruhe Institute of Technology (KIT)
- Prof. em. Dr.-Ing. Dr.-Ing. h.c. Roland Vollmar, KIT, GI representative

# **Representatives of the German federal government and states:**

- Peter Hauptmann, Saarland Ministry of Economics and Science, Saarbrücken, Representative of Saarland
- Wolfgang Habelitz, Ministry for Education, Science, Youth and Cultural Affairs, Mainz, Representative of Rhineland-Palatinate
- Dr. Rainer Jansen, German Federal Ministry of Education and Research, Bonn, Representative of the German Federal Government

# **Scientific Directorate**

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- Prof. Dr. Bernd Becker, University of Freiburg GI representative (GIBU)
- Prof. Dr. Karsten Berns, Technical University of Kaiserslautern Representative of the Technical University of Kaiserslautern
- Prof. Dr. Stefan Diehl, University of Trier Representative of the University of Trier
- Prof. Dr. Hannes Hartenstein, Karlsruhe Institute of Technology Representative of the Karlsruhe Institute of Technology
- Prof. Dr. Han La Poutré, CWI Amsterdam, Netherlands Representative of CWI Amsterdam
- Prof. Dr. Frank Leymann, University of Stuttgart Representative of the University of Stuttgart
- Dr. Stephan Merz, INRIA Nancy, France INRIA Representative
- Prof. Dr. Bernhard Nebel, University of Freiburg GI representative (Executive Board)
- Prof. Dr. Bernt Schiele, Max Planck Institute for Informatics, Saarbrücken Representative of the Technical University of Darmstadt
- Prof. Dr. Nicole Schweikardt, University of Frankfurt Representative of the University of Frankfurt
- Prof. Dr. Raimund Seidel, Saarland University GI representative (Executive Board)
- Prof. Dr. Gerhard Weikum, Max Planck Institute for Informatics, Saarbrücken Max Planck Society representative
- Prof. Dr. Dr. h.c. mult. Reinhard Wilhelm, Saarland University, Germany Scientific Director Representative of Saarland University

# Members-at-large:

- Prof. Dr. Friedemann Mattern, Swiss Federal Institute of Technology in Zurich (ETHZ), Switzerland
- Prof. Dr. Luca Benini, University of Bologna, Italy
- Prof. Dr. Jan-Olof Eklundh, Royal Institute of Technology, Stockholm, Sweden
- Prof. Dr. David Notkin, University of Washington, Seattle WA, USA

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- Prof. Dr. Dorothea Wagner, Karlsruhe Institute of Technology, Germany, *Chairman*

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Prof. Dr.-Ing. Dr. h.c. Andreas Reuter, HITS GmbH, Heidelberg, Germany

Dr. Frank Tip, IBM T.J. Watson Research Center, New York NY, USA

Dr. Volker Tresp, Siemens AG, Munich, Germany

# 2. Schedule of Events 2011

For information on the individual events, please refer to http://www.dagstuhl.de/<no.>

# 2.1 Dagstuhl Seminars and Perspectives Workshops

11011, 03.01.2011 – 07.01.2011

## Multi-Core Memory Models and Concurrency Theory

Hans J. Boehm (Hewlett Packard Labs, Palo Alto CA, USA), Ursula Goltz (TU Braunschweig, Germany), Holger Hermanns (Saarland Univ., Germany), Peter Sewell (Univ. Cambridge, UK)

### 11021, 09.01.2011 – 14.01.2011

# Feature-Oriented Software Development (FOSD)

Sven Apel (Univ. Passau, Germany), William Cook (Univ. Texas at Austin, USA), Krzysztof Czarnecki (Univ. Waterloo, Canada), Oscar Nierstrasz (Univ. Bern, Switzerland)

## 11031, 16.01.2011 – 21.01.2011

### Bidirectional Transformations "bx"

Zhenjiang Hu (National Institute of Informatics, Tokyo, Japan), Andy Schürr (TU Darmstadt, Germany), Perdita Stevens (Univ. Edinburgh, UK), James Terwilliger (Microsoft Research, Redmond WA, USA)

# 11041, 23.01.2011 – 28.01.2011

### Multimodal Music Processing

Simon Dixon (Queen Mary University of London, UK), Masataka Goto (AIST, Ibaraki, Japan), Meinard Müller (Saarland Univ. and MPI for Informatics, Saarbrücken, Germany)

### 11042, 25.01.2011 – 28.01.2011

# Learning from the Past: Implications for the Future Internet and its Management?

Gabi Dreo Rodosek (Univ. Bundeswehr, Munich, Germany), Aiko Pras (Univ. Twente, Netherlands), Henning Schulzrinne (Columbia Univ., USA), Burkhard Stiller (Univ. Zurich, Switzerland)

### 11051, 30.01.2011 – 04.02.2011

# Sparse Representations and Efficient Sensing of Data

Stephan Dahlke (Univ. Marburg, Germany), Michael Elad (Technion, Haifa, Israel), Yonina Eldar (Technion, Haifa, Israel), Gitta Kutyniok (Univ. Osnabrück, Germany), Gerd Teschke (Univ. Applied Sciences of Neubrandenburg, Germany)

# 11061, 06.02.2011 – 11.02.2011

### Online Privacy

Simone Fischer-Hübner (Karlstad Univ., Sweden), Chris Hoofnagle (UC Berkeley, USA), Kai Rannenberg (Univ. Frankfurt am Main, Germany), Michael Waidner (TU

Darmstadt, Germany). Coordinators: Ioannis Krontiris (Univ. Frankfurt am Main, Germany), Michael Marhöfer (Nokia Siemens Networks, Munich, Germany)

# 11062, 06.02.2011 – 11.02.2011

Self-Repairing Programs

Mauro Pezzé (Univ. Lugano, Switzerland), Martin C. Rinard (MIT, Cambridge MA, USA), Westley Weimer (Univ. Virginia, USA), Andreas Zeller (Saarland Univ., Germany)

# 11071, 13.02.2011 – 18.02.2011

**Theory and Applications of Graph Searching Problems (GRASTA 2011)** Fedor V. Fomin (Univ. Bergen, Norway), Pierre Fraigniaud (Université Paris Sud, France), Stephan Kreutzer (Univ. of Oxford, UK), Dimitrios M. Thilikos (National and Kapodistrian University of Athens, Greece)

# 11081, 20.02.2011 – 25.02.2011

**Combinatorial and Algorithmic Aspects of Sequence Processing** Maxime Crochemore (Université Paris-Est, France), Lila Kari (Univ. Western Ontario, London, Canada), Mehryar Mohri (New York Univ., USA), Dirk Nowotka (Univ. Stuttgart, Germany)

# 11091, 27.02.2011 – 04.03.2011

# Packing and Scheduling Algorithms for Information and Communication Services

Klaus Jansen (Univ. Kiel, Germany), Claire Mathieu (Brown Univ., Providence RI, USA), Hadas Shachnai (Technion, Haifa, Israel), Neal E. Young (Univ. California, USA)

# 11101, 06.03.2011 – 11.03.2011

# **Reasoning about Interaction**

Jürgen Dix (TU Clausthal, Germany), Wojtek Jamroga (Univ. Luxembourg, Luxembourg), Dov Samet (Tel Aviv Univ., Israel)

# 11111, 13.03.2011 – 18.03.2011

# Computational Geometry

Pankaj Kumar Agarwal (Duke Univ., USA), Kurt Mehlhorn (MPI for Informatics, Saarbrücken, Germany), Monique Teillaud (INRIA Sophia Antipolis, France)

# 11121, 20.03.2011 – 25.03.2011

# **Computational Complexity of Discrete Problems**

Martin Grohe (HU Berlin, Germany), Michal Koucký (Academy of Sciences, Prague, Czech Republic), Rüdiger Reischuk (Univ. Lübeck, Germany), Dieter van Melkebeek (Univ. Wisconsin, Madison WI, USA)

# 11131, 27.03.2011 – 01.04.2011

# Exploration and Curiosity in Robot Learning and Inference

Peter Dayan (Univ. College London, UK), Ales Leonardis (Univ. Ljubljana, Slovenia), Jan Peters (MPI for Biological Cybernetics, Germany), Jeremy L. Wyatt (Univ. Birmingham, UK)

# 11141, 03.04.2011 – 08.04.2011

#### **Plan Recognition**

Tamim Asfour (KIT - Karlsruhe Institute of Technology, Germany), Christopher W. Geib (Univ. Edinburgh, UK), Robert P. Goldman (SIFT, Minneapolis MI, USA), Henry Kautz (Univ. Rochester, USA)

#### 11142, 03.04.2011 - 08.04.2011

### **Innovations for Shape Analysis: Models and Algorithms**

Michael Breuß (Saarland Univ., Germany), Alfred M. Bruckstein (Technion, Haifa, Israel), Petros Maragos (National TU, Athens, Greece)

#### 11151, 10.04.2011 – 15.04.2011

#### Formal Methods in Molecular Biology

Rainer Breitling (University of Glasgow, UK), Frank J. Bruggeman (CWI – Amsterdam, Netherlands), Corrado Priami (Microsoft Research – University of Trento, Italy), Adelinde M. Uhrmacher (University of Rostock, Germany)

### 11171, 25.04.2011 – 29.04.2011

#### **Challenges in Document Mining**

Hamish Cunningham (Sheffield Univ., UK), Oren Etzioni (Univ. Washington, Seattle WA, USA), Norbert Fuhr (Univ. Duisburg-Essen, Germany), Benno M. Stein (Bauhaus Univ. Weimar, Germany)

#### 11172, 25.04.2011 – 29.04.2011

#### **Artificial Immune Systems**

Emma Hart (Napier Univ., Edinburgh, UK), Thomas Jansen (Univ. College Cork, Ireland), Jon Timmis (Univ. York, UK)

#### 11181, 01.05.2011 – 06.05.2011

### Organic Computing — Design of Self-Organizing Systems

Kirstie Bellman (Aerospace Corp., Los Angeles CA, USA), Andreas Herkersdorf (TU Munich, Germany), Michael G. Hinchey (Univ. Limerick, Ireland)

#### 11181, 03.05.2011 – 06.05.2011

### **Organic Computing – Design of Self-Organizing Systems**

Kirstie Bellman (Aerospace Corp., Los Angeles CA, USA), Andreas Herkersdorf (TU Munich, Germany), Michael G. Hinchey (Univ. Limerick, Ireland)

#### 11182, 01.05.2011 – 06.05.2011

### **Exploiting Graph Structure to Cope with Hard Problems**

Andreas Brandstädt (Univ. Rostock, Germany), Martin Charles Golumbic (Haifa Univ., Israel), Pinar Heggernes (Univ. Bergen, Norway), Ross McConnell (Colorado State Univ., USA)

#### 11191, 08.05.2011 – 13.05.2011

#### Graph Drawing with Algorithm Engineering Methods

Camil Demetrescu (Univ. Rome "La Sapienza", Italy), Michael Kaufmann (Univ. Tübingen, Germany), Stephen Kobourov (Univ. Arizona, Tucson AR, USA), Petra Mutzel (TU Dortmund, Germany)

## 11201, 15.05.2011 – 20.05.2011

### **Constraint Programming meets Machine Learning and Data Mining**

Luc De Raedt (K.U. Leuven, Belgium), Heikki Mannila (Univ. Helsinki, Finland), Barry O'Sullivan (Univ. College Cork, Ireland), Pascal Van Hentenryck (Brown Univ., Providence RI, USA)

11211, 22.05.2011 – 27.05.2011

#### Geometric Modeling

Thomas Grandine (The Boeing Company, Seattle WA, USA), Stefanie Hahmann (Institut polytechnique de Grenoble, France), Jörg Peters (Univ. Florida, Gainesville FL, USA), Wenping Wang (Univ. Hong Kong, China)

11231, 05.06.2011 – 10.06.2011

### Scientific Visualization

Min Chen (Univ. Oxford, UK), Hans Hagen (TU Kaiserslautern, Germany), Charles D. Hansen (Univ. Utah, USA), Arie Kaufman (SUNY at Stony Brook, USA)

### 11241, 13.06.2011 – 17.06.2011

### Design and Analysis of Randomized and Approximation Algorithms

Martin E. Dyer (Univ. Leeds, UK), Uriel Feige (Weizmann Institute, Rehovot, Israel), Alan M. Frieze (Carnegie Mellon Univ., Pittsburgh PA, USA), Marek Karpinski (Univ. Bonn, Germany)

#### 11261, 26.06.2011 – 01.07.2011

### Outdoor and Large-Scale Real-World Scene Analysis

Frank Dellaert (Georgia Institute of Technology, USA), Jan-Michael Frahm (Univ. North Carolina at Chapel Hill, USA), Marc Pollefeys (Swiss Federal Institute of Technology in Zurich (ETHZ), Switzerland), Bodo Rosenhahn (Univ. Hanover, Germany)

### 11271, 03.07.2011 – 06.07.2011

### **Computer Science in Sport**

Martin Lames (TU Munich, Germany), Tim McGarry (Univ. New Brunswick, Canada), Bernhard Nebel (Univ. Freiburg, Germany), Karen Roemer (Michigan Technical Univ., USA)

### 11272, 03.07.2011 – 06.07.2011

**Decision Procedures in Soft, Hard and Bio-ware — Follow Up** Nikolaj Bjorner (Microsoft Research, Redmond WA, USA), Robert Nieuwenhuis (UPC, Barcelona, Spain), Helmut Veith (TU Vienna, Austria), Andrei Voronkov (Univ. Manchester, UK)

11281, 10.07.2011 – 15.07.2011

### Verifiable Elections and the Public

Michael Alvarez (CalTech, Pasadena CA, USA), Josh Benaloh (Microsoft Corp., Redmond WA, USA), Alon Rosen (The Interdisciplinary Center, Herzliya, Israel), Peter Y. A. Ryan (Univ. Luxembourg, Luxembourg)

## 11291, 17.07.2011 – 22.07.2011

## Mathematical and Computational Foundations of Learning Theory

Matthias Hein (Saarland Univ., Germany), Gabor Lugosi (Univ. Pompeu Fabra, Barcelona, Spain), Lorenzo Rosasco (MIT, Cambridge MA, USA), Steve Smale (City Univ., Hong Kong, China)

#### 11321, 07.08.2011 – 12.08.2011

#### Information Management in the Cloud

Anastassia Ailamaki (EPFL Lausanne, Switzerland), Michael J. Carey (Univ. of California, Irvine CA, USA), Donald Kossmann (ETH Zurich, Switzerland), Steve Loughran (HP Lab, Bristol, UK), Volker Markl (TU Berlin, Germany), Raghu Ramakrishnan (Yahoo! Research – Santa Clara CA, USA)

#### 11331, 15.08.2011 – 18.08.2011

### The Future of Research Communication

Tim Clark (Mass General Hospital & Harvard Medical School, USA), Anita De Waard (Elsevier Labs, Jericho VT, USA), Ivan Herman (CWI, Amsterdam, Netherlands), Eduard Hovy (Univ. Southern California, Marina del Rey CA, USA)

#### 11332, 15.08.2011 – 18.08.2011

#### Security and Rewriting

Hubert Comon-Lundh (ENS, Cachan, France), Ralf Küsters (Univ. Trier, Germany), Catherine Meadows (Naval Research, Washington D.C., USA)

### 11341, 22.08.2011 – 26.08.2011

### Learning in the Context of Very High Dimensional Data

Michael Biehl (Univ. Groningen, Netherlands), Barbara Hammer (Univ. Bielefeld, Germany), Erzsébet Merényi (Rice Univ., USA), Alessandro Sperduti (Univ. Padova, Italy), Thomas Villmann (Univ. Applied Sciences Mittweida, Germany)

#### 11351, 28.08.2011 – 02.09.2011

#### **Computer Science & Problem Solving: New Foundations**

Georg Gottlob (Univ. Oxford, UK), Yll Haxhimusa (TU Vienna, Austria), Zygmunt Pizlo (Purdue Univ., West Lafayette IN, USA), Iris van Rooij (Radboud Univ. Nijmegen, Netherlands)

#### 11361, 04.09.2011 – 09.09.2011

**Data Warehousing: From Occasional OLAP to Real-time Business Intelligence** Markus Schneider (Univ. Florida, USA), Gottfried Vossen (Univ. Münster, Germany), Esteban Zimanyi (Université Libre de Bruxelles, Belgium)

#### 11371, 11.09.2011 – 16.09.2011

### **Uncertainty Modeling and Analysis with Intervals**

Isaac Elishakoff (Florida Atlantic Univ., Boca Raton FL, USA), Vladik Kreinovich (Univ. Texas, El Paso TX, USA), Wolfram Luther (Univ. Duisburg-Essen, Germany), Evgenija D. Popova (Bulgarian Academy of Sciences, Bulgaria)

## 11381, 18.09.2011 – 23.09.2011 Quantum Cryptanalysis

Serge Fehr (CWI – Amsterdam, Netherlands), Michele Mosca (Univ. Waterloo,

Canada), Martin Rötteler (NEC Laboratories America, Inc., Princeton NJ, USA), Rainer Steinwandt (Florida Atlantic Univ., Boca Raton FL, USA)

## 11391, 28.09.2011 – 30.09.2011

#### Public-Key Cryptography

Marc Fischlin (TU Darmstadt, Germany), Anna Lysyanskaya (Brown Univ., Providence, RI, USA), Ueli Maurer (ETH Zurich, Switzerland), Alexander May (Ruhr Univ. Bochum, Germany)

11401, 03.10.2011 - 07.10.2011

#### **Forensic Computing**

Felix C. Freiling (Univ. Erlangen, Germany), Dirk Heckmann (Univ. Passau, Germany), Radim Polcák (Masaryk Univ., Czech Republic), Joachim Posegga (Univ. Passau, Germany)

#### 11411, 09.10.2011 – 14.10.2011

**Computing with Infinite Data: Topological and Logical Foundations** Ulrich Berger (Univ. Wales, Swansea, UK), Vasco Brattka (Univ. Cape Town, South Africa), Victor Selivanov (Russian Academy of Sc., Novosibirsk, Russia), Dieter Spreen (Univ. Siegen, Germany), Hideki Tsuiki (Kyoto Univ., Japan)

#### 11421, 16.10.2011 – 21.10.2011

### Foundations of Distributed Data Management

Serge Abiteboul (INRIA, Orsay Cedex, France), Alin Deutsch (Univ. California, San Diego CA, USA), Thomas Schwentick (TU Dortmund, Germany), Luc Segoufin (ENS, Cachan, France)

### 11441, 02.11.2011 – 04.11.2011

### Science and Engineering of Cyber-Physical Systems

Holger Giese (Hasso Plattner Institute, Potsdam, Germany), Bernhard Rumpe (Aachen Univ. Technology, Germany), Bernhard Schätz (fortiss GmbH, Munich, Germany), Janos Sztipanovits (Vanderbilt Univ., USA)

### 11451, 06.11.2011 – 11.11.2011

### Data Mining, Networks and Dynamics

Lars Elden (Linköping Univ., Sweden), Andreas Frommer (Univ. Wuppertal, Germany)

### 11452, 08.11.2011 – 11.11.2011

### Analysis of Dynamic Social and Technological Networks

Vito Latora (Universita di Catania, Italy), Cecilia Mascolo (Univ. Cambridge, UK), Mirco Musolesi (Univ. Birmingham, UK)

### 11461, 13.11.2011 – 18.11.2011

### Coding Theory

Joachim Rosenthal (Univ. Zurich, Switzerland), M. Amin Shokrollahi (EPFL, Lausanne, Switzerland), Judy Walker (Univ. Nebraska, Lincoln NE, USA)

### 11471, 24.11.2011 – 25.11.2011

Efficient Algorithms for Global Optimisation Methods in Computer Vision Andrés Bruhn (Saarland Univ., Germany), Thomas Pock (TU Graz, Austria), Xue-Cheng Tai (Univ. Bergen, Norway)

11481, 27.11.2011 – 02.12.2011 Models@run.time

Uwe Aßmann (TU Dresden, Germany), Nelly Bencomo (INRIA Paris-Rocquencourt, France), Betty H. C. Cheng (Michigan State Univ., USA), Robert B. France (Colorado State Univ., USA)

#### 11491, 04.12.2011 – 09.12.2011

Secure Computing in the Cloud

Benny Pinkas (Bar Ilan Univ. Ramat Gan, Israel), Ahmad-Reza Sadeghi (TU Darmstadt, Germany), Nigel P. Smart (Univ. Bristol, UK)

#### 11492, 04.12.2011 – 09.12.2011

#### Secure Architectures in the Cloud

Sabrina De Capitani di Vimercati (Univ. Milan, Italy), Wolter Pieters (Univ. Twente, Netherlands), Christian W. Probst (Technical Univ. Denmark, Denmark), Jean-Pierre Seifert (TU Berlin, Germany)

#### 11501, 11.12.2011 – 16.12.2011

# Visualization and Processing of Tensors and Higher Order Descriptors for Multi-Valued Data

Bernhard Burgeth (Saarland Univ., Germany), Anna Vilanova Bartroli (TU Eindhoven, Netherlands), Carl-Fredrik Westin (Harvard Medical School, Boston MA, USA)

11502, 11.12.2011 – 14.12.2011

### Design of Reversible and Quantum Circuits

Kenichi Morita (Hiroshima Univ., Japan), Robert Wille (Univ. Bremen, Germany)

#### 11511, 18.12.2011 – 21.12.2011

#### Privacy and Security in Smart Energy Grids

Stefan Katzenbeisser (TU Darmstadt, Germany), Klaus Kursawe (Univ. Nijmegen, Netherlands), Bart Preneel (K.U. Leuven, Belgium), Ahmad-Reza Sadeghi (TU Darmstadt, Germany)

# 2.2 GI-Dagstuhl Seminars, Continuing Education/CPE Events

11232, 06.06.2011 – 10.06.2011
Seminar of the German Computer Science Academy (DIA): Design Techniques and Architecture for High-Quality Software
G. Vossen, University of Münster, Germany

11322, 07.08.2011 – 12.08.2011

Summer School on Software Synthesis

Rastislav Bodik (Univ. California, Berkeley CA, USA), Sumit Gulwani (Microsoft Research, Redmond WA, USA), Viktor Kuncak (EPFL, Lausanne, Switzerland), Eran Yahav (Technion, Haifa, Israel)

11392, 25.09.2011 – 28.09.2011

Scientific Journalism Workshop — Writing and Speaking on Informatics Roswitha Bardohl (LCI, Saarbrücken, Germany), Jörg Göpfert (Berlin, Germany), Volkart Wildermuth (Berlin, Germany)

11503, 14.12.2011 – 16.12.2011

## CPD for teachers and instructors in Computer Science

Roswitha Bardohl (LCI, Saarbrücken, Germany), Heinz Dabrock (LPM Saarbrücken, Germany), Reinhard Wilhelm (Saarland Univ., Germany), Martin Zimnol (IFB, Speyer, Germany)

# 2.3 Other Events

11032, 16.01.2011 – 19.01.2011 **GESIS Retreat Meeting** York Sure (GESIS, Bonn, Germany)

11033, 20.01.2011 – 21.01.2011 ERIS Research Conference 2011 A. Mädche (Univ. Mannheim, Germany)

11052, 30.01.2011 – 04.02.2011 **Dynamical Complex Network – The DynaNets Consortium** Peter Sloot (University of Amsterdam, Netherlands)

11072, 16.02.2011 – 18.02.2011 **Model-Based Development of Embedded Systems** Holger Giese (Hasso Plattner Institute, Potsdam, Germany), Michaela Huhn (TU Braunschweig, Germany), Jan Philipps (Validas AG, Munich, Germany), Bernhard Schätz (fortiss GmbH, Munich, Germany)

11073, 13.02.2011 – 15.02.2011 **Retreat meeting, Zeller Dept. Chair** S. Hack (Saarland Univ., Germany), A. Zeller (Saarland Univ., Germany) 11083, 22.02.2011 – 23.02.2011 **Retreat meeting, Slusallek study group** Philipp Slusallek (Saarland Univ., Germany)

11092, 28.02.2011 – 04.03.2011 **Retreat meeting "Numerical Simulation, Optimization and High Performance Computing — Software Design"** V. Heuveline (KIT Karlsruhe, Germany)

11112, 16.03.2011 – 18.03.2011 **Retreat meeting, Telematics Working Group of the Univ. of Karlsruhe** Sören Finster (Univ. Karlsruhe, Germany), Martina Zitterbart (Univ. Karlsruhe, Germany)

11113, 13.03.2011 – 16.03.2011 Retreat meeting of the Rannenberg Dept. Chair K. Rannenberg (Univ. Frankfurt, Germany)

11122, 21.03.2011 – 23.03.2011 **Zitterbart Project Conference** Oliver Waldhorst (KIT – Karlsruhe Institute of Technology, Germany), Martina Zitterbart (KIT – Karlsruhe Institute of Technology, Germany)

11123, 23.03.2011 – 25.03.2011 **Aachen Graduate College** W. Thomas (Aachen University of Technology, Germany)

11132, 27.03.2011 – 30.03.2011 **Counterexamples for Stochastic Systems** Erika Abraham (Aachen Univ. Technology, Germany), Bernd Becker (Univ. Freiburg, Germany), Nils Jansen (Aachen Univ. Technology, Germany), Ralf Wimmer (Univ. Freiburg, Germany)

11133, 30.03.2011 – 01.04.2011 Formal Methods for Making IT Systems Secure Heiko Mantel (TU Darmstadt, Germany)

11143, 03.04.2011 – 08.04.2011 **StOER Meeting** Rob Koper (Open University of Heerlen, Netherlands)

11162, 18.04.2011 – 19.04.2011 GIBU 2011: GI Advisory Board of University Professors Gregor Snelting (Univ. Karlsruhe, Germany)

11192, 08.05.2011 – 13.05.2011 OTEC Retreat Meeting Rob Koper (Open University of Heerlen, Netherlands) 11193, 09.05.2011 – 10.05.2011 **Retreat meeting R. Steinmetz Dept. Chair** Ralf Steinmetz (TU Darmstadt, Germany)

11222, 29.05.2011 – 01.06.2011 **Colloquium, GI 2010 Dissertation Prize** Steffen Hölldobler, (TU Dresden, Germany)

11252, 19.06.2011 – 22.06.2011 Joint Workshop of the Graduate Colleges I H. Seidl (TU Munich, Germany)

11253, 22.06.2011 – 24.06.2011 Joint Workshop of the Graduate Colleges II A. Mitschele-Thiel (TU Ilmenau), Germany

11262, 26.06.2011 – 01.07.2011 International View of the State-of-the-Art of Cryptography and Security and Its Use in Practice Bart Preneel (K.U. Leuven, Belgium), Ahmad-Reza Sadeghi (TU Darmstadt,

Germany), Claire Vishik (Intel, London, UK)

11282, 11.07.2011 – 13.07.2011 Retreat meeting, M. Goesele chair M. Goesele (TU Darmstadt, Germany)

11292, 18.07.2011 – 20.07.2011 **Retreat meeting, Freiling Dept. Chair** Felix C. Freiling (Univ. Erlangen, Germany)

11293, 20.07.2011 – 22.07.2011 **Retreat meeting: BW-FIT Project SpoVNet** Oliver P. Waldhorst (KIT Karlsruhe, Germany), Martina Zitterbart (KIT Karlsruhe, Germany)

11352, 30.08.2011 – 02.09.2011 **Retreat meeting of the Stuckenschmidt Dept. Chair** Heiner Stuckenschmidt (Univ. Mannheim, Germany)

11362, 07.09.2011 – 09.09.2011 **Common Interest Workshop of the Hack and Wilhelm Department Chairs** Sebastian Hack (Saarland Univ., Germany), Reinhard Wilhelm (Saarland Univ., Germany)

11372, 11.09.2011 – 16.09.2011 Semantic Statistics for Social, Behavioural, and Economic Sciences Richard Cyganiak (National Univ. Ireland, DERI, Galway, Ireland), Arofan Gregory (Open Data Foundation, Tucson AZ, USA), Wendy Thomas (Population Center, Univ. Minnesota, USA), Joachim Wackerow (GESIS. Leibniz Institute for the Social Sciences, Germany)

## 11382, 18.09.2011 – 23.09.2011

## DDI: Managing Metadata for Longitudinal Data — Best Practices

Arofan Gregory (Open Data Foundation, Tucson AZ, USA), Wendy Thomas (Population Center, Univ. Minnesota, USA), Mary Vardigan (Univ. Michigan, ICPSR, USA), Joachim Wackerow (GESIS, Leibniz Institute for the Social Sciences, Germany)

11403, 05.10.2011 – 07.10.2011

### Working retreat, graduate collegium 1194

Uwe D. Hanebeck (Karlsruhe Institute of Technology, Germany), Johannes Schmid (Karlsruhe Institute of Technology, Germany)

11463, 16.11.2011 – 18.11.2011

**Retreat meeting, Schmeck Dept. Chair** Florian Allerding (Karlsruhe Institute of Technology, Germany), Hartmut Schmeck (Karlsruhe Institute of Technology, Germany)

11472, 20.11.2011 – 23.11.2011

**Memory-Constrained Algorithms and Their Applications** 

Tetsuo Asano (JAIST, Nomi, Japan), Wolfgang Mulzer (FU Berlin, Germany), Günter Rote (FU Berlin, Germany)

11473, 23.11.2011 – 25.11.2011 **Retreat meeting, ICSY** Paul Müller (TU Kaiserslautern, Germany)

11483, 30.11.2011 – 01.12.2011 **CelTech Retreat 2011** Christoph Igel (VISU, Saarland Univ., Germany)

# 3. Dagstuhl Guests: Statistics Breakdown According to Country of Origin in 2011

Chart: see page 21

Country	A	B	С
Germany	532	749	1281
United Kingdom	166	6	172
France	135	7	142
Netherlands	77	30	107
Iceland	75	2	77
Switzerland	67	6	73
Austria	42	5	47
Spain	25	6	31
Sweden	25	3	28
Norway	22	2	24
Denmark	20	3	23
Poland	18	3	21
Ireland	18	1	19
Luxembourg	13	0	13
Czech Republic	12	0	12
Finland	9	0	9
Portugal	8	0	8
Greece	7	0	7
Slovenia	6	0	6
Hungary	2	3	5
Russia	4	0	4
Europe, other	10	1	11
Europe excl. Germany	761	78	839

Country	A	В	С
USA	371	33	404
Canada	71	1	72
North America	442	34	476
Israel	62	7	69
Bangladesh	50	8	58
Japan	29	10	39
Hong Kong	10	0	10
China	7	2	9
Other	24	3	27
Asia	182	30	212
Australia	16	0	16
Brazil	6	0	6
South Africa	5	0	5
New Zealand	4	0	4
Other	10	0	10
Rest of world	41	0	41
Total	1958	891	2849

**A** Seminar participants

**B** Participants of other events

**C** Total guests

# 4. Comments of Participants

#### 10381: Robust Query Processing (19.09. – 24.09.2010) Harumi Kuno, HP Labs – Palo Alto CA, USA

Thank you again for accepting, facilitating, and hosting Dagstuhl Seminar 10381 on Robust Query Processing. It was a very intense, yet rewarding, experience, and I think everyone who was there left with a deep appreciation for the Dagstuhl Center. Thank you very much for making the seminar possible. Dagstuhl Institute is a WONDERFUL resource for the computer science community.

#### 11021: Feature-Oriented Software Development (FOSD) (09.01. – 14.01.2011) Shriram Krishnamurthi, Brown University – Providence RI, USA

We just wanted to thank you all for the tremendous help you gave with our toddler's visit. The staff at the center were extremely helpful and thoughtful, taking care of all our possible needs. The baby-sitter (Elvira) was terrific, and our daughter still talks fondly about her and about Dagstuhl.

## 11031: Bidirectional Transformations "bx" (16.01. – 21.01.2011) Hartmut Ehrig, Technical University of Berlin, Germany

Besonders schätze ich die gute Ausstattung der Bibliothek und die Idee, Bücher von den Autoren persönlich signieren zu lassen, auch wenn das für mich einige Zusatzarbeit bedeutet hat. Darüber hinaus ist Dagstuhl als Begegnungsstätte für Informatiker nach wie vor einmalig gut.

### *11031: Bidirectional Transformations "bx" (16.01. – 21.01.2011) Christoph Brandt, University of Luxembourg*

Ich wollte mich ganz herzlich bei Ihnen für die ausgezeichnete Atmosphäre während des Dagstuhl Seminars zum Thema "Bidirektionale Transformation" bedanken.

Wir sind zu sehr guten Ergebnissen gekommen und konnten zukünftigeKooperationen vereinbaren. Die schöne Umgebung hat dabei sehr geholfen und hat sich wohltuend von dem Rahmen der üblichen internationalen Tagungshotels unterschieden.

# 11041: Multimodal Music Processing (23.01. – 28.02.2011)

Mainard Müller, Saarland University and MPI for Informatics – Saarbrücken, Germany

Wir hatten eine fantastische Woche in Dagstuhl, die Rahmenbedingungen waren einfach super, und wir hatten auch eine Gruppe – sehr interaktiv, sehr international, sehr interdisziplinär.

### 11181: Organic Computing - Design of Self-Organizing Systems (01.05. – 06.05.2011) Andreas Herkersdorf, Technical University of Munich, Munich, Germany

An dieser Stelle möchte ich mich ganz herzlich auch im Namen aller Organisatoren für Ihre Hilfe und Unterstützung im Vorfeld und Vorort bei der Durchführung des Seminars bedanken. Sie haben wesentlich zum Gelingen des Seminars beigetragen, und Dagstuhl ist halt immer etwas Besonderes! *11291: Mathematical and Computational Foundations of Learning Theory (17.07. – 22.07.2011)* 

### Sergei Pereverzyev, RICAM – Linz, Austria

By the way, I just have realized that this year is a kind of jubilee for me, since my first visit to Dagstuhl was 20 years ago when I attended the Seminar 9116 "Algorithms and complexity of continuous problems". So, time is running, but the attractivity of Dagstuhl remains unaltered.

#### *11501: Visualization and Processing of Tensors and Higher Order Descriptors for Multi-Valued Data (11.12. – 16.12.2011) Markus Strommel, Saarland University, Germany*

An der Universität des Saarlandes forsche ich im Bereich der Ingenieurwissenschaften – also durchaus mehr anwendungs-orientiert. Insofern war auf das Dagstuhl-Seminar sehr gespannt, ob sich hier für ich mich Anknüpfungspunkte und neue Verbindungen ergeben würden. Das Seminar hat meine Erwartungen klar übertroffen. Zum einen konnte ich aus den Vorträgen, die für mich überwiegend auf anderen Fachgebieten lagen, interessante neue Ideen und auch Lösungen für meine Forschungsfragestellungen aufgreifen. Zum anderen möchte ich besonders hervorheben, dass ich mich bereits mit Teilnehmern des Seminars vor einer Woche wieder getroffen habe und wir konkrete die Umsetzung von Ideen, die auf dem Seminar "geboren" wurden, in ein Forschungsprojekt angehen. Diese Teilnehmer (Mathematiker, Informatiker) hätte ich auf den von mir üblicherweise besuchten Veranstaltungen (Kongresse, Seminare etc.) der ingenieurwissenschaftlichen Community sicherlich nicht angetroffen.

# *11501: Visualization and Processing of Tensors and Higher Order Descriptors for Multi-Valued Data (11.12. – 16.12.2011)*

### Peter Basser, National Institute of Child Health and Human Development, USA

I have heard from many of my associates how pleasant and informative these meetings are, how lovely the castle is where the meeting takes place, how stimulating is the academic environment and the delicious food.