

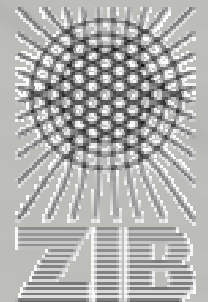
# Math-Net:

Math-Net Pages and  
the Math-Net Navigator,  
Professional homepages  
Math&Industry Pages

ICIAM 2003

Sydney,

7 –11 July 2003



# Agenda

- **Mathematical Information on the Web**
- The work of the Committee on Electronic Information and Communication (CEIC)
- The Math-Net Page (for Departments) and the Math-Net Navigator
- The Math-Net Page for Societies
- Professional Homepages

# Mathematics on the Web: Google

The image shows a screenshot of the Google Web Directory interface. At the top left is the Google logo with 'Web Directory' underneath. To the right is a search bar with a 'Google Search' button and a link to 'Directory Home'. Below the search bar are two radio buttons: 'Search only in Science' (selected) and 'Search the Web'. The main heading is 'Science', with a link to 'Go to Directory Home' on the right. A green bar labeled 'Categories' is followed by a grid of category links and their counts. Below this is a section 'Science Categorized by Letter:' with a row of letters from A to Z. At the bottom, 'Related Categories:' lists three sub-categories with their counts.

**Science** [Go to Directory Home](#)

**Categories**

<a href="#">Agriculture</a> (2494)	<a href="#">Educational Resources</a> (337)	<a href="#">News</a> (100)
<a href="#">Anomalies and Alternative Science</a> (579)	<a href="#">Employment</a> (160)	<a href="#">Physics</a> (4236)
<a href="#">Astronomy</a> (3443)	<a href="#">Environment</a> (7238)	<a href="#">Publications</a> (286)
<a href="#">Biology</a> (23270)	<a href="#">History of Science</a> (430)	<a href="#">Reference</a> (384)
<a href="#">Chemistry</a> (3687)	<a href="#">Institutions</a> (1158)	<a href="#">Science in Society</a> (685)
<a href="#">Conferences</a> (40)	<a href="#">Instruments and Supplies</a> (2010)	<a href="#">Social Sciences</a> (23815)
<a href="#">Directories</a> (51)	<a href="#">Math</a> (10691)	<a href="#">Software</a> (194)
<a href="#">Earth Sciences</a> (7096)	<a href="#">Methods and Techniques</a> (184)	<a href="#">Technology</a> (11949)

Science Categorized by Letter:  
[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

Related Categories:  
[Recreation > Humor > Science](#) (194)  
[Reference > Encyclopedias](#) (4060)  
[Shopping > Recreation > Science and Nature](#) (516)

# Navigation structure in Google



Google Search

[Directory Help](#)

Search only in Math  Search the Web

## Math

[Science](#) > Math

[Go to Directory Home](#)

### Categories

[Academic Departments](#) (1185)

[Algebra](#) (375)

[Analysis](#) (139)

[Applications](#) (822)

[Calculus](#) (69)

[Chaos and Fractals](#) (310)

[Combinatorics](#) (367)

[Differential Equations](#) (128)

[Directories](#) (42)

[Education](#) (883)

[Employment](#) (27)

[Events](#) (156)

[Geometry](#) (464)

[History](#) (49)

[Logic and Foundations](#) (833)

[Mathematicians](#) (293)

[Number Theory](#) (847)

[Numerical Analysis](#) (260)

[Operations Research](#) (207)

[Organizations](#) (116)

[Probability](#) (121)

[Publications](#) (599)

[Recreations](#) (516)

[Reference](#) (36)

[Research](#) (236)

[Software](#) (490)

[Statistics](#) (888)

[Topology](#) (197)

[Trigonometry](#) (6)

Related Categories:

[Recreation > Humor > Science > Mathematics](#) (28)

[Society > Philosophy > Philosophy of Science > Philosophy of Mathematics](#) (36)

[Kids and Teens > School Time > Math](#) (219)

# Facts

- there is a great deal of mathematical information in the Web
- it is provided by many different *players*:
  - mathematicians
  - mathematical institutions
  - libraries
  - publishers
  - software companies, ....

# Examples (I)

- Preprint Servers  
(MPRESS collects preprint information from 126 servers),
- Mathematical Journals  
(currently, more than 900 mathematical mathematical journals are provided in electronic form via the Web),
- Digital Archives  
(e.g., retrodigitized materials: Cornell, Göttingen, Grenoble, ...),

# Examples (II)

- Bibliographic Databases and Reviews  
(MathSci, Zentralblatt Math, INSPEC, CompuScience, ...)
- Software and Test-Data Sets  
(elib contains more than 60.000 programs)
- Information about Mathematicians  
(the Combined Membership List of AMS, MAA, SIAM, AWM lists more than 30 000 members)



# Further Web sites relevant for Mathematics

- Teaching Materials,
- Information about Projects,
- Event Services: Conference and Seminar Announcements,
- Service for special Topics: Geometric Models, Computeralgebra Systems, ...
- Information for a broad Audience
- OPAC's,
- ...



# Remarks

1. The mathematical community plays an active role in electronic information and communication.
2. Mathematical Web sites are maintained by a large number of providers from the mathematical community.  
Normally, they do this work as volunteers.
3. The electronic medium become more and more important for the mathematical community and all others which are interested in mathematics.

# Remarks

4. The electronic information and communication systems in mathematics is distributed. Well-structured portals are necessary for an user-friendly and effective access to the information. Collecting the distributed Web sites is a problem.
5. The information of the local Web sites differs in content, form and quality. The description of the electronic resources isn't standardised.

# First conclusions

To use the electronic medium for mathematics in an effective way the efforts of the mathematical community in the field of electronic information and communication have to be coordinated and developed.

The mathematical community has to become active to assure that the information and communication system fits the needs of the mathematical community.

The IMU is the native institution for coordinating all activities in this field.

# What we want?

- all information on the Web
- an **adequate quality** of presentation of the information on the Web
- an easy, intuitive and affordable access to the information (the **Semantic Web for Mathematics**)

# Agenda

- Mathematical Information on the Web
- The work of the Committee on Electronic Information and Communication (CEIC)
- The Math-Net Page (for Departments) and the Math-Net Navigator
- The Math-Net Page for Societies
- Professional Homepages

# The IMU activities in information and communication

8/1998      ICM 98: The IMU decides to increase its engagement in the field of electronic information and communication:  
CEIC is established

# The work of CEIC - a short chronological summary (I)

- 11/1998      Kick-off of CEIC in Berlin:  
the German Math-Net project  
as a possible model for an IMU  
activity
- 12/1999      Workshop at MSRI:  
**The Future of Mathematical  
Communication,**  
CEIC defines the **guidelines** of  
its work



# CEIC's Terms of Reference (Berkeley 99)

- a. The CEIC shall be a **standing committee of the Executive Committee (EC) of the IMU**, to be reviewed every four years by the EC at its meeting preceding that of the GA. Members will be appointed for four year terms by procedures similar to those for Commissions of the IMU. The Executive Committee will appoint one of its members to serve on the CEIC.

# CEIC's Terms of Reference

- b. The CEIC may meet as necessary in each four year period, **review the development of Electronic Information and Communication as it impacts the international mathematical community and submit a report to the EC.**

# CEIC's Terms of Reference

- c. The CEIC may organize or sponsor international meetings or forums to bring together representatives of all interested parties, including societies, publishers, libraries, and researchers, publish and otherwise disseminate proceedings, reviews of recent developments, and technical surveys for the use of the mathematical community.

# CEIC's Terms of Reference

- d. The CEIC may recommend international standards on issues related to electronic communication. Such recommendations should be reviewed by the EC and, if approved, may be published and promoted in the name of the IMU.

# CEIC's Terms of Reference

- e. During its first 4 year term, the CEIC is specifically asked to address the coordination of world-wide efforts to establish web-based servers for mathematical papers, preprints, journals, and books. This includes issues of uniformizing metadata, document identifiers and supported formats, promoting mirroring and the development of search engines for mathematical material and coordination of existing servers.

# CEIC's Terms of Reference

It should **publish** its findings with the goal **of making the use of these servers universally understood and usable by the whole mathematical community**. It is also asked to consider **transferring the World Directory of Mathematicians to an electronic freely accessible form**.

# The work of CEIC - a short chronological summary (II)

6/2000 Declaration of the **Math-Net Charter**  
<http://www.math-net.org/charter>

approved by the  
Executive Committee of the  
International Mathematical Union  
on May 16, 2000



# Excerpts from the Math-Net Charter

- Math-Net is intended to organize and enhance the **free flow of information within mathematics worldwide**.
- The objective of Math-Net is to provide **efficient access to high quality mathematical information** "at the fingertips" of the user.
- The **use** of Math-Net is **free**.
- Math-Net aims at **making information and services freely available** - whenever possible.

# Excerpts from the Math-Net Charter

- Math-Net is organized **under the aegis** of the **International Mathematical Union (IMU)**.
- Math-Net is **steered** by the **IMU Committee on Electronic Information and Communication (CEIC)** via
  - a **user-driven** and **not for profit activity**,
  - open for all willing to provide mathematical information electronically.

# Excerpts from the Math-Net Charter

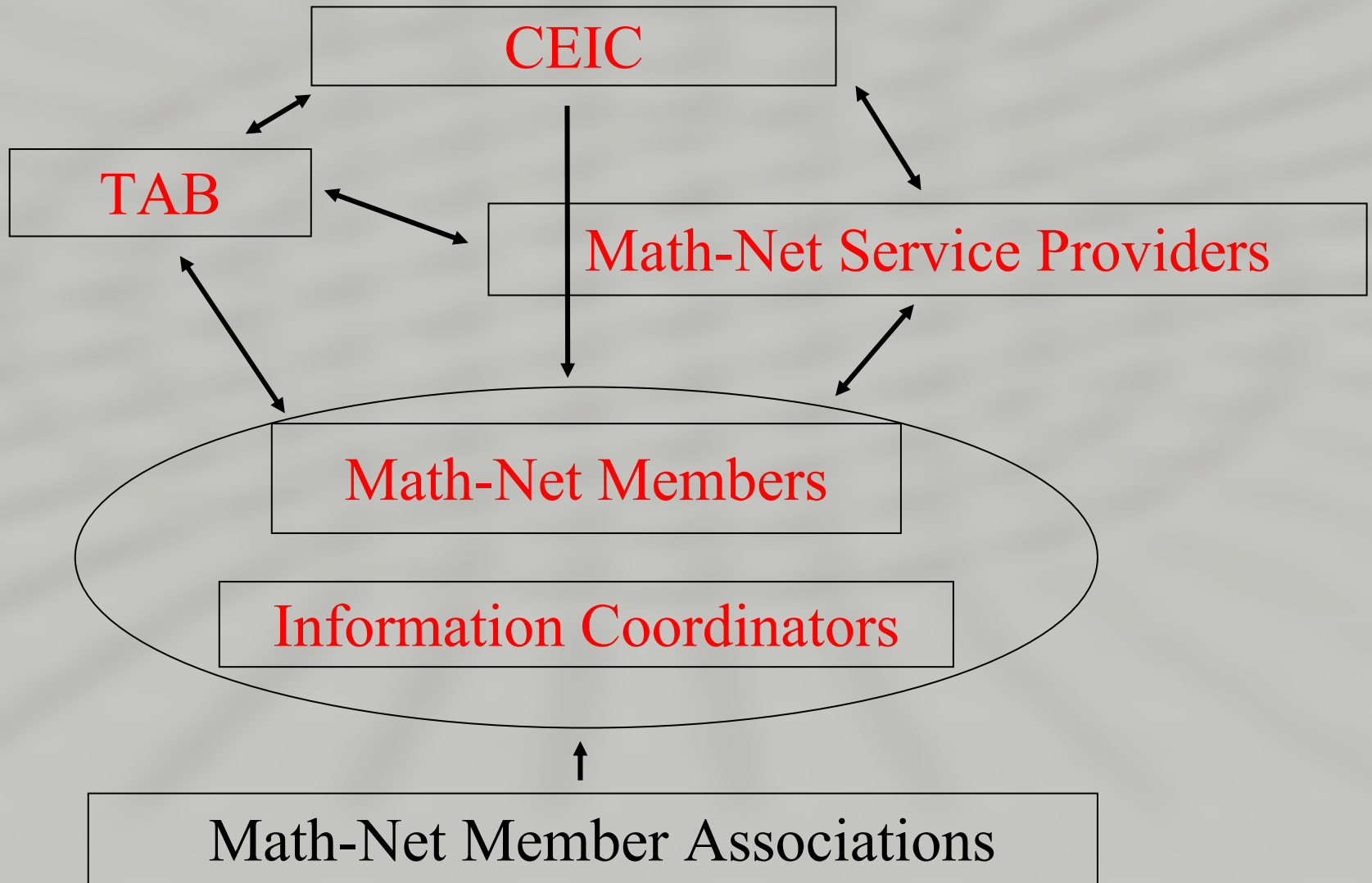
Math-Net is a global electronic information and communication system for mathematics:

- structured,
- distributed,
- interoperable,
- user-friendly,
- high-quality

# Excerpts from the Math-Net Charter

- **Math-Net** is based on structured mathematical information offered electronically by participating institutions, the **Math-Net Members**.
- Math-Net combines the available resources into services, provided by groups of volunteers, the **Math-Net Service Providers**.

# Math-Net Charter: Organization



# The work of CEIC - a short chronological summary (III)

8/2000

CEIC Meeting in Vienna

Definition of **core activities**:

- **Math-Net Pages**:  
definition, tool, documentation
- **Preprints**:  
metadata, further extension  
(internationalisation) of MPRESS
- **Professional homepages**:  
metadata, World Directory of  
Mathematicians

# The work of CEIC - a short chronological summary (IV)

5/2001 CEIC Meeting Princeton (partially, together with EC):

- Call to all Mathematicians to Make Publications Electronically Available
- CEIC Copyright Recommendations: What Do You Want from Your Publisher?
- Math-Net Pages (Math-Net PageMaker - a tool to create Math-Net Pages)



# The work of CEIC - a short chronological summary (V)

2/2002

CEIC Meeting in Vancouver:

- Best Current Practices:  
Recommendations on Electronic Information and Communication
- Call to All Mathematical Institutions to Install Math-Net Pages
- first discussions about the World Digital Mathematics Library and the retrodigitization in mathematics

# The work of CEIC - a short chronological summary (VI)

8/2002      GA in Shanghai/ICM in Beijing:  
  
Sessions about Electronic  
Information and Communication in  
Mathematics on GA and ICM  
  
informal meeting of CEIC

# The work of CEIC - a short chronological summary (VII)

5/2003 CEIC meeting in Berlin

- World Directory of Mathematicians (WDML)
- Best Current Practices
- Intellectual Propert Right/Copyright
- World Directory of Mathematicians
- Web sites of IMU, CEIC, Math-Net
- Math-Net

# Agenda

- Mathematical Information on the Web
- The work of the Committee on Electronic Information and Communication (CEIC)
- The Math-Net Page (for Departments) and the Math-Net Navigator
- The Math-Net Page for Societies
- Professional Homepages

Homepages of mathematical  
institutions –  
some examples

# Homepages of mathematical institutions: the homepage of the Macquarie University (Math Dep.)



**Department of Mathematics**  
Division of Information and Communication Sciences  
Macquarie University - Sydney

Division of Information and  
Communication Sciences



Department of  
Mathematics

[Home Pages](#): Meet the mathematicians. (They're quite friendly.)

[Contact Details](#): Reach out and touch a mathematician.

[Picture Gallery](#): See some of the faces behind the names.

[Courses](#): What we teach is core knowledge for your future.

[Honours in Mathematics](#): Extending your horizons in abstract directions.

[Research Groups](#): Find out exactly what it is that mathematicians do.

[Centre of Australian Category Theory](#): For when too many arrows are barely enough.

[Advanced Program in Mathematics](#): Courses for the extremely clever.

[Numeracy Centre](#): Services, workshops and courses offered by the friendly staff of the Centre.

[Randomised Quizzes](#): Test how well you've been grounded in the basics.



If you must go elsewhere, why not try the following sites...

## General


- [Yahoo](#)
- [Alta Vista](#)

## Mathematics sites



# Homepages of mathematical institutions: the homepage of the CECM, Simon-Fraser University

[About Us](#) [Members](#) [Partner Sites](#) [Research Projects](#) [What's New](#) [Interfaces](#)



## Centre for Experimental and Constructive Mathematics

Permanent Members  
Associate Members  
Technical Associates  
Visitors / Students  
Past Members

### Lectures Not to Miss

August 9, 2002 [CECM 2002 Summer Workshop on Computer Assisted Mathematics and Advanced Collaboration](#)

August 12-16, 2002 [Teaching and Doing Mathematics with Maple](#),  
with Michael Monagan, CECM, SFU (the new [CECM director](#)).

[The Centre](#) • [Projects](#) • [Research](#)

#### What's New

#### Cutting Edge Resources

1. [CECM Interfaces and CECM Preprints](#)
2. [SFU CoLab](#)
3. [Teaching and Doing Mathematics with Maple on August 12-16, 2002.](#)
4. [WestGrid: The Innovation Grid](#) (Alberta and BC join forces in \$30 Million Grid Project)
5. [IRMaCS](#) (New Math Centre funded at SFU)
6. [HPC@SFU](#) (CFI funded installation)
7. [CEIC](#) (IMU Committee on Electronic Matters)
8. [CECM Newsletters](#) (CECM 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100)

Sunday, Aug. 11, 2002

Welcome to CECM

QuickLinks

#### Toolbox

#### CECM Site Search


[Advanced Search](#)

#### Comments

Your name:

Your email address:

Your comments:

 [search britannica.com](#)



# Homepages of mathematical institutions: the homepage of the MPI of Mathematics in Bonn

## MAX PLANCK INSTITUTE OF MATHEMATICS MAX-PLANCK-INSTITUT FÜR MATHEMATIK

Vivatsgasse 7, D-53111 Bonn, Germany Phone: (49) 228/402-0  
Postal Address: P.O.Box: 7280, D-53072 Bonn Fax: (49) 228/402277



Local Math-Net Homepage:

[english](#) [german](#)

Announcement:

[Mathematische Arbeitstagung 2003](#)

### General information

[How to find us](#)

### Allgemeine Informationen

[Wegbeschreibung](#)

### Practical information

[Useful addresses](#)

[Application for membership](#)

[Bonn information](#)

### Departments

[Library](#)

[Computer](#)

[Public relations](#)

[Administration](#)



 [Max Planck Society](#)  
[for the Advancement of Science](#)

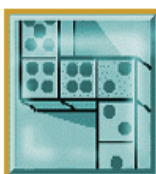
 [Max-Planck-Gesellschaft](#)  
[zur Förderung der Wissenschaften](#)



### People

[The list of guests](#)

[Permanent staff](#)



### Activities and Services

[Weekly activities](#)

[Long-term activities](#)

[MPI-Preprints](#)

 [MathSciNet](#)

Search

If you have suggestions about this document, please send e-mail to [www@mpin-bonn.de](mailto:www@mpin-bonn.de)

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[Impressum](#)

# Math-Net Page - the idea

the examples illustrate

- there are many beautifully designed homepages
- but, the homepages differ in content, vocabulary, structure and layout, for most homepages, metadata are missing (this is a problem for the automatic processing of information)

the Math-Net Page –

an attempt to standardize the homepages of mathematical institutions

# Math-Net Page - Concept and Tool

- idea: A **standardized portal for the core information** of Math-Net Members and the Math-Net Services as an additional entry point (secondary homepage) for the Web of mathematical departments

standardization concerns

- the **vocabulary**
- the **structure** and
- the **layout**

of the Math-Net Page

# The structure (blocks) of the Math-Net Page



**Block II.1**  
(Name of the Department and the University, Logo)

**Block I**  
(Math-Net Services)

**Block II.2**  
(Local Contact, Local Search Engine, Homepages of the Department and the University)

**Block II.3**  
(Groups and Subgroups of the Math-Net Page)

global and regional (optionally) information (Block I on the left hand side)  
local information (Block II on the right hand side)

# The core information of mathematical institutions: groups and subgroups

<b>General</b>
About us
Organization of the Department / Institute
Information for Prospective Students
Community Outreach
Information for Visitors
<b>People</b>
Faculty / Staff
Students
Long-term Visitors / Associates
<b>News</b>
Schedule of Events
Information for Dep. Members / Members of the Institute
Positions Available
<b>Research</b>
Research Groups
Preprints / Publications
Projects
Software Development
<b>Teaching</b>
Academic Programs / Curricula
Class Schedules
Course Informations and Materials
<b>Information Services</b>
Computing Services
Libraries
Journals
Bibliographic Search

Groups (white headlines) and subgroups of the Math-Net Page

# Needs to the Math-Net Page

- Math-Net Pages should be understandable and acceptable worldwide: it should be possible to use notation in an arbitrary language
- a second reason to allow flexible labels: typical descriptions for the groups and subgroups of the Math-Net Page (**labels**) could differ from region to region

 **Standard** and **Alternative** Math-Net Pages



# The Math-Net Page of the Macquirie University (Standard Math-Net Page)



## Mathematics Department Macquarie University

Division of Information and  
Communication Sciences

Department of  
Mathematics



International  
Services

Sigma

Navigator

MPRESS

Persona Math

MathLinks

eJournals

Contact

▶ About the  
Math-Net Page

Local Contact

Homepage

Univ. Homepage

General

▶ More Topics

- ▶ About us
- ▶ Organization of the Department
- ▶ Information for Prospective Students
- ▶ Community Outreach

People

▶ More Topics

- ▶ Faculty / Staff
- ▶ Students
- ▶ Long-term Visitors / Associates

News

▶ More Topics

- ▶ Positions Available

Research

▶ More Topics

- ▶ Research Groups

Teaching

▶ More Topics


- ▶ Academic Programs / Curricula
- ▶ Class Schedules
- ▶ Course Information and Materials

Information Services


Standard Math-Net Page



# Standard Math-Net Page of TU München





## Center for Mathematical Sciences Munich University of Technology (TUM)



[Local Contact](#)  [Local Search](#) [Homepage](#) [Univ. Homepage](#)

<p>International Services</p> <ul style="list-style-type: none"><li><a href="#">Sigma</a></li><li><a href="#">Navigator</a></li><li><a href="#">MPRESS</a></li><li><a href="#">Persona Math</a></li><li><a href="#">MathLinks</a></li><li><a href="#">eJournals</a></li><li><a href="#">Contact</a></li></ul>	<h3>General</h3> <ul style="list-style-type: none"><li>▶ <a href="#">About us</a></li><li>▶ <a href="#">Organization of the Department</a></li><li>▶ <a href="#">Information for Prospective Students</a></li><li>▶ <a href="#">Community Outreach</a></li><li>▶ <a href="#">Information for Visitors</a></li></ul>	<h3>Research</h3> <ul style="list-style-type: none"><li>▶ <a href="#">Research Groups</a></li><li>▶ <a href="#">Preprints / Publications</a></li><li>▶ <a href="#">Projects</a></li><li>▶ <a href="#">Software Development</a></li></ul>
<p>Services of Math-Net.de</p> <ul style="list-style-type: none"><li><a href="#">Regional Services</a></li><li><a href="#">Software</a></li><li><a href="#">Newsletter</a></li><li><a href="#">Contact</a></li><li><a href="#">Help</a></li></ul> <p>▶ <a href="#">About the Math-Net Page</a></p>	<h3>People</h3> <ul style="list-style-type: none"><li>▶ <a href="#">Faculty / Staff</a></li><li>▶ <a href="#">Students</a></li></ul>	<h3>Teaching</h3> <ul style="list-style-type: none"><li>▶ <a href="#">Academic Programs / Curricula</a></li><li>▶ <a href="#">Class Schedules</a></li><li>▶ <a href="#">Course Information and Materials</a></li></ul>
	<h3>News</h3> <ul style="list-style-type: none"><li>▶ <a href="#">Schedule of Events</a></li><li>▶ <a href="#">Information for Dept. Members</a></li><li>▶ <a href="#">Positions Available</a></li></ul>	<h3>Information Services</h3> <ul style="list-style-type: none"><li>▶ <a href="#">Computing Services</a></li><li>▶ <a href="#">Libraries</a></li><li>▶ <a href="#">Journals</a></li><li>▶ <a href="#">Bibliographic Databases</a></li></ul>

▶  

Standard Math-Net Page

# Alternative Math-Net Page of TU München (German)

	<h2>Zentrum Mathematik</h2> <p>Technische Universität München</p> 	
<p>International Services</p> <ul style="list-style-type: none"><li>Sigma</li><li>Navigator</li><li>MPRESS</li><li>Persona Math</li><li>MathLinks</li><li>eJournals</li><li>Contact</li></ul>	<p>Local Contact <input type="text"/> Local Search <input type="text"/> Homepage Univ. Homepage</p>	
	<p><b>Allgemeines</b></p> <ul style="list-style-type: none"><li>▶ Wir über uns</li><li>▶ Organisation</li><li>▶ Hinweise für Studienanfänger</li><li>▶ Mathematik und Öffentlichkeit</li><li>▶ Hinweise für Besucher</li></ul>	<p><b>Forschung</b></p> <ul style="list-style-type: none"><li>▶ Arbeitsgruppen</li><li>▶ Preprints / Veröffentlichungen</li><li>▶ Projekte</li><li>▶ Softwareentwicklung</li></ul>
<p>Math-Net.de Dienste</p> <ul style="list-style-type: none"><li>Regionale Dienste</li><li>Software</li><li>Newsletter</li><li>Kontakt</li><li>Hilfe</li></ul>	<p><b>Personen</b></p> <ul style="list-style-type: none"><li>▶ Lehrkörper / Mitarbeiter</li><li>▶ Studenten</li></ul>	<p><b>Lehre</b></p> <ul style="list-style-type: none"><li>▶ Studiengänge</li><li>▶ Lehrveranstaltungen</li><li>▶ Lehrmaterial</li></ul>
	<p><b>Aktuelles</b></p> <ul style="list-style-type: none"><li>▶ Veranstaltungskalender</li><li>▶ Mitteilungen</li><li>▶ Stellenangebote</li></ul>	<p><b>Informationsdienste</b></p> <ul style="list-style-type: none"><li>▶ Computing Services</li><li>▶ Bibliotheken</li><li>▶ Zeitschriften</li><li>▶ Literaturrecherchen</li></ul>
<p>Über die Math-Net Seite</p>	<p>▶   </p> <p style="text-align: right;">Deutsche Math-Net Seite</p>	

# Alternative Math-Net Page of TU München (Russian)



## Математический Центр Технический Университет, г. Мюнхен



Local Contact  Поиск [Homepage](#) [Univ. Homepage](#)

<b>Общие сведения</b>	<b>Исследования</b>
<ul style="list-style-type: none"><li>▶ О нас</li><li>▶ Структура факультета</li><li>▶ Информация для начинающих студентов</li><li>▶ Математика и общество</li><li>▶ Информация для посетителей</li></ul>	<ul style="list-style-type: none"><li>▶ Рабочие группы</li><li>▶ Публикации</li><li>▶ Проекты</li><li>▶ Разработка программного обеспечения</li></ul>
<b>Люди</b>	<b>Образование</b>
<ul style="list-style-type: none"><li>▶ Сотрудники</li><li>▶ Студенты</li></ul>	<ul style="list-style-type: none"><li>▶ Направления / Специализация</li><li>▶ Расписание занятий</li><li>▶ Учебные пособия</li></ul>
<b>Новости</b>	<b>Информационные службы</b>
<ul style="list-style-type: none"><li>▶ Расписание событий</li><li>▶ Информация для сотрудников</li><li>▶ Вакансии</li></ul>	<ul style="list-style-type: none"><li>▶ Вычислительные службы</li><li>▶ Библиотеки</li><li>▶ Журналы</li><li>▶ Поиск литературы</li></ul>

▶ [О странице Math-Net](#)

▶   

Русская страница Math-Net

# Alternative Math-Net Page of the Peking University

	<b>数学科学学院</b> 北京大学		
	<b>Local Contact</b>	<b>Homepage</b>	<b>Univ.Homepage</b>
<b>International Services</b>	<b>学院一览</b> ▶ More Topics	<b>科研工作</b> ▶ More Topics	
<b>Sigma</b>	▶ 本院各系		
<b>Navigator</b>	▶ 招生信息		
<b>MPRESS</b>			
<b>Persona Math</b>			
<b>MathLinks</b>	<b>师资力量</b>	<b>教学活动</b> ▶ More Topics	
<b>eJournals</b>	▶ 教职员工	▶ 选课指南	
<b>Contact</b>	▶ 学生园地	▶ 课程简介	
<b>About the Math-Net Page</b>	<b>新闻事件</b>	<b>信息服务</b>	
	▶ 招聘启事	▶ 图书馆	
		▶ 期刊	
	▶ <b>English Version</b>		

???

Math-Net Page with alternative labels

# Character Encodings and the Math-Net Page

- the Math-Net Page allows the use of **local character encoding**  
(e.g. the character encoding on the Chinese Math-Net Page of the Peking University is „GBK“, on the Russian Math-Net Page of the TU München „Windows-1251“)
- alternatively it is possible to use **Unicode (UTF-8)** as character encoding



# How to generate a Math-Net Page?

- users need tools which allow them to
  - generate a Math-Net Page and
  - change an existing Math-Net Pagein a simple way

⇒ the Math-Net Page Maker

# Math-Net Page Maker

is a tool to create and edit Math-Net Pages

- Math-Net Pages for **Departments**
- Math-Net Pages for **Research Institutes**
- soon: Math-Net Pages for **Societies**
  
- Math-Net Pages with „**standard labels**“
- Math-Net Pages with „**alternative labels**“
  
- Math-Net Pages with **different character encodings**



# More

The Math-Net Page Maker produces a deeply structured document;

it consists of two parts

- an **html**-part
- a **metadata**-part (encoded in **RDF**)
- URL of the Math-Net Page Maker:  
<http://www.math-net.org/pagemaker>

# It is simple to create a Math-Net Page

1. Go to <http://www.math-net.org/pagemaker>
2. On the entry page, select the corresponding choice
3. Fill out the form
4. Click on the „Create“ button
5. Install the Math-Net Page at your server

# The IMU/CEIC-Recommendation about Math-Net Pages

## **IMU/CEIC Recommendation: Call to all mathematical institutions to install Math-Net Pages**

*Recommended by the Committee on Electronic Information and Communication (CEIC) of the IMU on February 17, 2002*

*[endorsed by the Executive Committee of the IMU on April 12, 2002]*

Almost every mathematics department or research institute has a homepage that provides basic information about people and activities in the department. In order to be useful to those outside, the homepage should have an easily recognizable, clear, and intuitive structure. Unfortunately, while many of the current homepages are beautifully designed, they differ dramatically in both structure and content. The **International Mathematical Union (IMU)** wants to improve this situation and help users to find high-quality mathematical information.

The Math-Net Page for departments or research institutes provides a way to standardize the presentation of basic information about the department. The Math-Net Page is not meant to replace a nicely designed homepage, but rather to serve as a "secondary homepage" with a uniform and intuitive structure. The uniform structure allows users to find information easily and reliably.

Based on the recommendation of its **Committee on Electronic Information and Communication (CEIC)**, the International Mathematical Union (IMU) asks every mathematics institution throughout the world to create a **Math-Net Page**, to install a prominent link to that page from its primary homepage, and to maintain its Math-Net Page in the future.

The Math-Net Page for mathematics departments and research institutes is the result of an intensive international effort. Further information can be found at [Launching the Math-Net Page](#).

Detailed information about creating and installing a Math-Net Page can be found at [http://www.math-net.org/Math-Net\\_Page\\_Help.html](http://www.math-net.org/Math-Net_Page_Help.html). For questions and comments, please send e-mail to [math-net@zib.de](mailto:math-net@zib.de)

# What can we do with Math-Net Pages?

- **Math-Net Pages are local portals** (standardized additional homepages to the information of the mathematical institutions)
- **the Math-Net Navigator is** a service for an efficient access to the information of mathematical institutions, **a global portal** to the information of mathematical institutions

# The Math-Net Navigator - top level

## Math-Net Navigator

► World

Search Keywords

in Math-Net World ▼

Go

Browse Math-Net: ► World

- International Mathematical Union (IMU)
- Committee on Electronic Information Communication (CEIC)



- Africa [0]
- America [4]
  - +--- Brazil (2)
  - +--- Canada (23)
  - +--- Chile (1)
  - +--- United States (29)
- Asia [3]
  - +--- China (2)
  - +--- Singapore (1)
  - +--- Turkey (1)
- Australia [1]
  - +--- Australia (3)

Go

# The Math-Net Navigator combines search and navigation

The Math-Net Navigator provides:

- a search function  
(covering the Web sites of the Math-Net Members)
- a geographically-oriented view of the Math-Net Members
- work in progress:  
a subject-oriented view of the information provided by the Math-Net members based on the classification scheme of the Math-Net Page,  
e.g., a list of all Math-Net Members offering preprints



# The Math-Net Navigator: view to US institutions (with Math-Net Pages)

## Math-Net Navigator

▶ World ▶ America ▶ United States

Search Keywords

in Math-Net World ▼


Go

Browse Math-Net: ▶ World ▶ America ▶ United States

▶ Name	▶ City	▶ State	▶ Type
<b>Departments/Research Institutes</b>			
▶ Georgia Institute of Technology	Atlanta		Department
▶ Mathematical Science Research Institute	Berkeley		Research Institut
▶ Lehigh University	Bethlehem		Department
▶ Virginia Tech	Blacksburg		Department
▶ Florida Atlantic University	Boca Raton		Department
▶ University of Colorado at Boulder	Boulder		Department
▶ Bryn Mawr College	Bryn Mawr		Department
▶ Harvard University	Cambridge		Department
▶ Southern Illinois University Carbondale	Carbondale		Department
▶ University of North Carolina at Chapel Hill	Chapel Hill		Department
▶ The University of North Carolina at Charlotte	Charlotte		Department
▶ University of Maryland	College Park		Department
▶ Duke University	Durham NC		Department
▶ University of Oregon	Eugene		Department



# View to Australian departments (with Math-Net Pages)



**Math-Net Navigator**  
▶ World ▶ Australia ▶ Australia

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Search Keywords  
 in Math-Net World

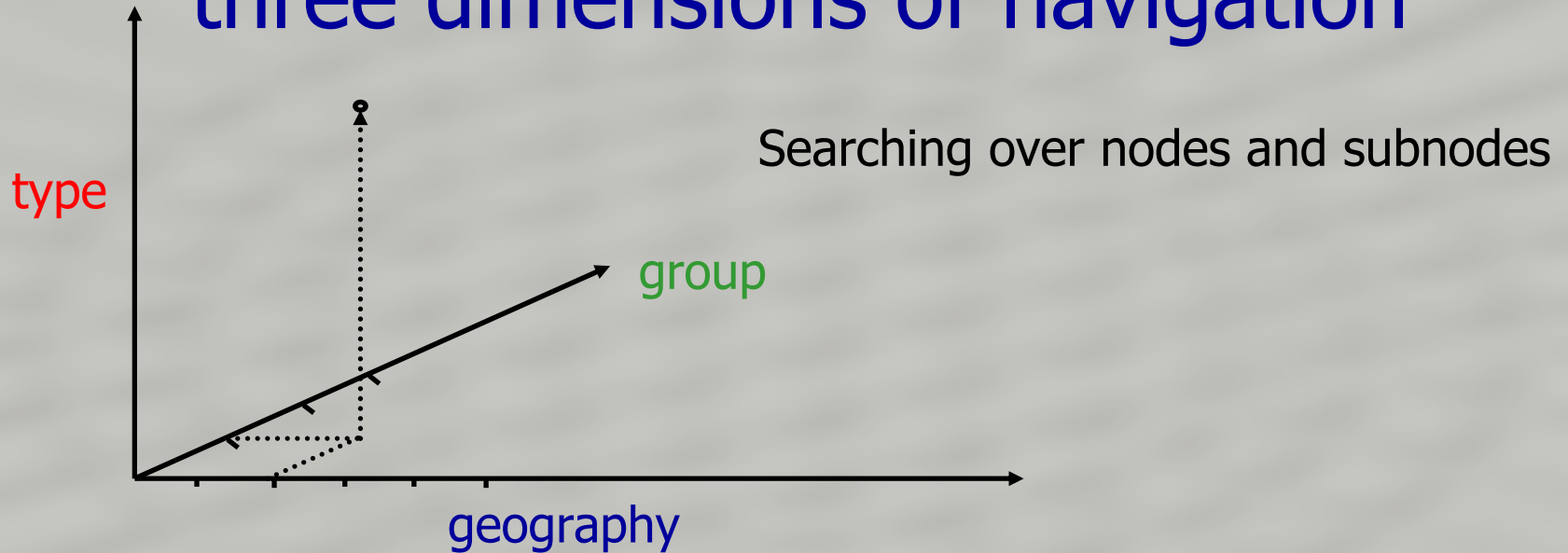
Browse Math-Net: ▶ World ▶ Australia ▶ Australia

▶ Name	▶ City	▶ State	▶ Type
<b>Departments/Research Institutes</b>			
▶ The University of Adelaide	Adelaide		Department
▶ Macquarie University	Sydney		Department
<b>Lists</b>			
▶ Australian Math Departments			List

Σ  
Institutions  
[by subgroups](#)  
Preprints  
People  
Software  
Links  
Info  
Contact  
Newsletter

To little!

# Idea of the Navigator: three dimensions of navigation



World > Europe > Germany > ZIB > Preprints

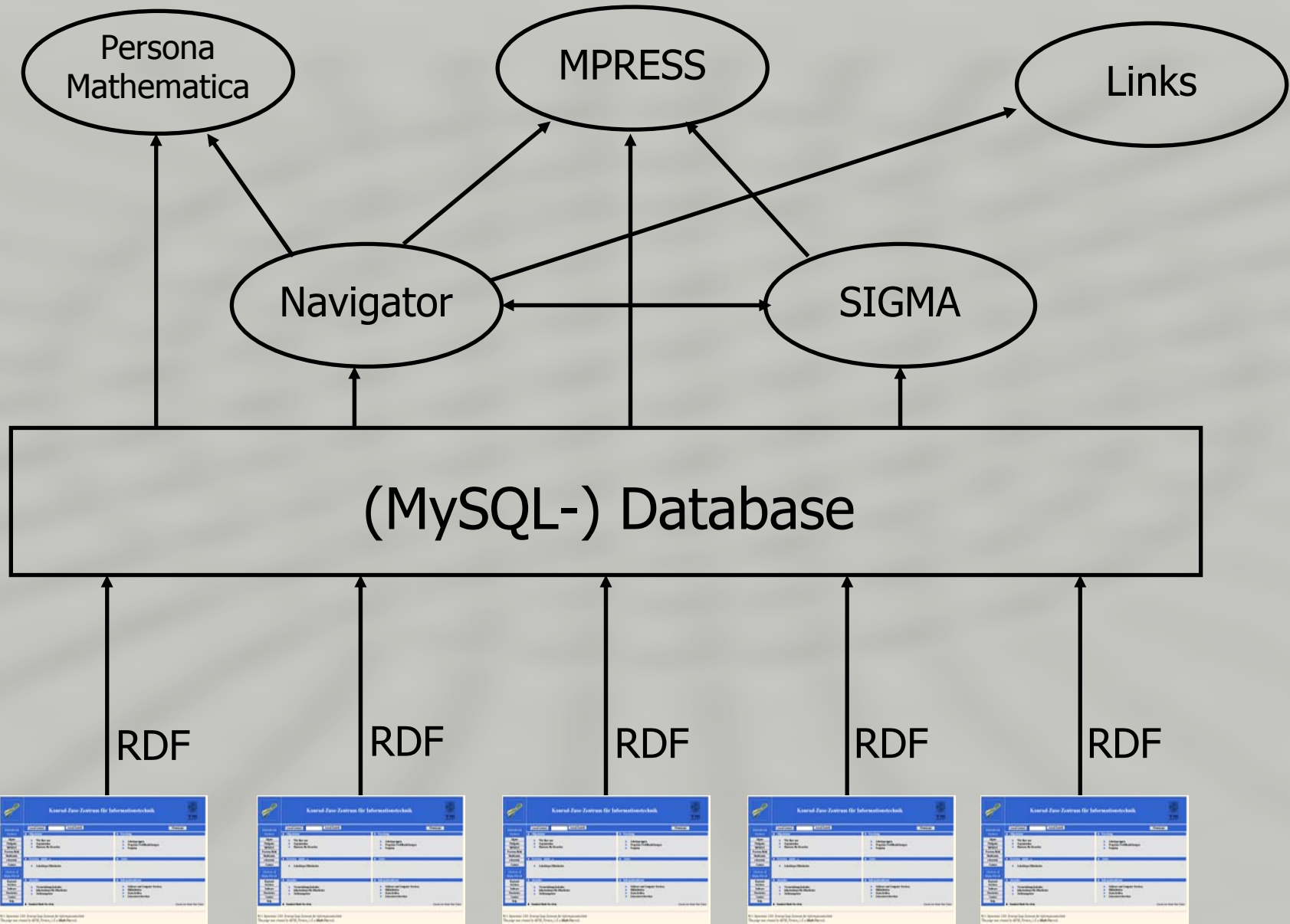
Preprints > World > Europe > Germany > Research Institutes > ZIB

Research Institutes > World > Europe > Germany > ZIB > Preprints

World > Research Institutes > Europe > Preprints > Germany > ZIB

# About the Math-Net Navigator

- automatic processing (collecting, summarizing, indexing ...) of the Math-Net Pages, especially the RDF-part
- database driven
- can be the starting point for other Math-Net Services („Web Services“)



# For the Future: Using the new Web technologies for the data exchange between services based on XML

- Web Services
- SOAP (Simple Open Access Protocol)

# Dissemination of the Math-Net Page

up to now nearly 200 Math-Net Pages

## America:

- Brazil 2
- Canada 23
- Chile 1
- US 29

## Asia

- China 1
- Singapur 1
- Turkey 1
- Vietnam 1

## Australia

- Australia 2

## Europe

- Austria 8
- Belgium 2
- Denmark 4
- Germany 83
- France 3
- Hungary 1
- Italy 6
- Poland 1
- Russia 3
- Slovakia 1
- Spain 2
- Sweden 3
- UK 16



# Planned activities

1. Better information: e-mails to web masters of institutional math servers to initiate more Math-Net Pages
2. Math-Net Pages for societies

## Enrichment of the Navigator

3. In the next days:  
Extension of the Math-Net Navigator by lists of web sites of Math Departments

# Agenda

- Mathematical Information on the Web
- The work of the Committee on Electronic Information and Communication (CEIC)
- The Math-Net Page (for Departments) and the Math-Net Navigator
- **The Math-Net Page for Societies**
- Professional Homepages

# The Math-Net Page of mathematical societies

Example: [The Math-Net Page of the DMV](#)

# Groups and subgroups of the Math-Net Page for Societies: General

Subgroups of General:

- About the Society
- Office
- News
- History
- Awards
- Grants

# Groups and subgroups of the Math-Net Page for Societies: Members

## Subgroups of Members:

- Membership
- Dues
- Reciprocal Societies
- Register of Members
- Honorary Members

# Groups and subgroups of the Math-Net Page for Societies: Organization

## Subgroups of Organization:

- Board
- Committees / Deputies
- Interest Groups
- Statutes



# Groups and subgroups of the Math-Net Page for Societies: Publications

Subgroups of General:

- Newsletters
- Journals
- Proceedings
- Bulletins
- Further Publications

# Groups and subgroups of the Math-Net Page for Societies: Activities

## Subgroups of Activities:

- Meetings
- Joint Initiatives
- Recommendations / Reports
- Mathematics Competitions
- Discussion Forums

# Groups and subgroups of the Math-Net Page for Societies: Further Information

## Subgroups of General:

- Mathematical Societies
- Mathematical Departments
- Mathematics and School
- Professional Perspectives
- Job Offers
- Further Links

## Remarks:

- the Math-Net Page for Societies is under discussion
- the ideas of this Page were also used in a redesign of the IMU homepage

# The new IMU-server



## International Mathematical Union (IMU)

- ▶ Home
- ▶ General
- ▶ Members
- ▶ Organization
- ▶ Publications
- ▶ Activities
- ▶ Further Infos
- ▶ ICM

▶ Mirrors ▶ Imprint

### General

- ▶ About
- ▶ Office
- ▶ News
- ▶ History
- ▶ Awards
- ▶ Grants

### Publications

- ▶ Circular Letters
- ▶ Bulletins

### Members

- ▶ Candidacy for Membership
- ▶ Member Countries
- ▶ Affiliated Members

### Activities

- ▶ International Congress of Mathematicians (ICM)
- ▶ ICM related Grants
- ▶ Conferences
- ▶ World Mathematical Year 2000

### Organization

- ▶ Executive Committee
- ▶ General Assembly
- ▶ Other Committees / Commissions
- ▶ Statutes

### Further Infos

- ▶ Mathematical Societies
- ▶ Links to the Mathematical World

# Agenda

- Mathematical Information on the Web
- The work of the Committee on Electronic Information and Communication (CEIC)
- The Math-Net Page (for Departments) and the Math-Net Navigator
- The Math-Net Page for Societies
- Professional Homepages



# Math-Net is more than the Math-Net Page!

Aim:

to standardize the information about persons  
in a suitable way

Idea: a standardized professional homepage

# Proposal for a professional homepage



**Prof. Dr. Martin Grötschel**

**Konrad-Zuse-Zentrum für Informationstechnik Berlin (ZIB)**

**DFG-Forschungszentrum  
"Mathematik für Schlüsseltechnologien"**

**Technische Universität Berlin**

## General Information

▶ Other

- ▶ **Contact Information**
- ▶ **Information for Visitors**
- ▶ **Academic Positions/Professional History**
- ▶ **Awards & Distinctions**
- ▶ **Curriculum Vitae**

## Collaborations and Cooperations

▶ Other

- ▶ **Genealogy**
- ▶ **Students**
- ▶ **Co-Authors and Collaborators**
- ▶ **Industrial Cooperation**

## News and Miscellaneous

▶ Other

- ▶ **Announcements**
- ▶ **Future Conferences and Meetings**
- ▶ **Other Interests**
- ▶ **Personal Information**
- ▶ **Favorite Links**

## Research

▶ Other

- ▶ **Research Areas and Applications**
- ▶ **Other Scientific Interests**
- ▶ **Publications**
- ▶ **Research Projects / Grants**
- ▶ **Talks / Presentations**
- ▶ **Software**

## Teaching

▶ Other

- ▶ **Information for Students**
- ▶ **Current and Future Teaching**
- ▶ **Courses taught**
- ▶ **Teaching and Course Materials**

## Professional Activities

▶ Other

- ▶ **Editorial Responsibilities / Refereeing**
- ▶ **Professional Societies / Administrative Service**
- ▶ **Congress and Workshop Organization**
- ▶ **Other Services, Duties, and Functions**



# Comments

- structure and design in analogy to the Math-Net Page
- header information: name and affiliation, optionally a photo
- 6 groups and their corresponding subgroups
- metadata for a standardized processing of the information given on the homepage

# To Do

- the proposal is under discussion
- definition of metadata
- tools to generate the professional homepages  
(PageMaker)

Thanks!

