



SEPT 12 – 16  
**2011**  
**VIENNA**

european  
summer school  
for scientometrics

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**programme**  
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# programme overview

Two conference-like introductory days addressing a broader audience are followed by three days with seminars, individual hands-on sessions and teamwork in small groups.

**September 11th** Pre-Programme  
**„Bibliometrics in a Nutshell“:  
Crash Course for Newbies**

## Conference

**September 12th** Conference day 1  
**Introduction to Scientometrics:  
Theoretical and Practical Aspects**

**September 13th** Conference day 2  
**Procedures and Indicators**

## Seminars

**September 14th** Seminars day 1  
**- Journal Impact Measures  
- h-index and Related Measures**

**September 15th** Seminars day 2  
**- Cooperation, Co-authorship, Social Networks  
- Mapping Science**

**September 16th** Seminars day 3  
**Workshop: Research Evaluation in Practice**

# programme conference

## September 12th 2011: Introduction to Scientometrics Theoretical and Practical Aspects

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**Chair: Christian Gumpenberger**

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- 09.00-09.10**      **Welcome and Opening Remarks**  
Christian Gumpenberger, Bibliometrics Department, University of Vienna, Austria
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- 09.10-10.00**      **History and Institutionalization of Scientometrics**  
Wolfgang Glänzel, Centre for R&D Monitoring (ECCOM), Katholieke Universiteit Leuven, Belgium / Stefan Hornbostel, Institute for Research Information and Quality Assurance (iFQ), Germany; Humboldt-Universität (HU) zu Berlin
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- 10.00-10.45**      **New developments in bibliometric methods for evaluation and mapping of scientific research**  
Anthony van Raan, CWTS – Centre for Science and Technology Studies, Leiden University, The Netherlands
- 
- 10.45-11.00**      **Coffee break**
- 
- Chair: Sybille Hinze**
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- 11.00-11.45**      **Special Topic: Bibliometrics in the History and Philosophy of Science**  
Werner Marx, Central Information Service, Max Planck Institute for Solid State Research, Stuttgart, Germany
- 
- 11.45-12.30**      **New developments in the use of bibliometric tools in research assessment**  
Henk Moed, Senior Scientific Advisor, Elsevier
- 
- 12.30-13.30**      **Lunch break**

## programme conference

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**Chair: Juan Gorraiz**

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- 13.30-14.15**      **Practical Aspects of Scientometrics**  
Koenraad Debackere, Centre for R&D Monitoring (ECCOM),  
Katholieke Universiteit Leuven, Belgium
- 
- 14.15-15.00**      **Bibliometrics, Research Evaluation and National Science Policy:  
What Works and What Goes Wrong?**  
Jonathan Adams, Director of Research Evaluation, Thomson Reuters
- 
- 15.00-15.15**      **Coffee break**
- 
- 15.15-16.00**      **Scopus in-person tutorial**  
Arthur Eger, Customer Development Manager, Elsevier B.V.
- 
- 16.00-16.25**      **The SciVal Suite – Helping Institutions to Establish, Evaluate and  
Execute Research Strategies**  
Jörg Hellwig, Product Sales Manager Databases, Elsevier B.V.

## September 13th 2011: Procedures and indicators

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**Chair: Stefan Hornbostel**

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- 09.00-10.30**      **Metrics for Research Evaluation:  
Indicators, Methods and Mathematical Foundations**  
Wolfgang Glänzel, Centre for R&D Monitoring (ECCOM), Katholieke  
Universiteit Leuven, Belgium / Sybille Hinze, Institute for Research  
Information and Quality Assurance (iFQ), Germany
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- 10.30-10.45**      **Coffee break**

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**Chair: Wolfgang Glänzel**

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**10.45-11.30**

**Mapping Science**

Bart Thijs, Centre for R&D Monitoring (ECOOM), Dept MSI,  
Katholieke Universiteit Leuven, Belgium

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**11.30-12.15**

**Network Analyses**

Edgar Schiebel, Head of Technology Management, AIT Austrian  
Institute of Technology GmbH, Austria

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**12.15-13.15**

**Lunch break**

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**Chair: Christian Gumpenberger**

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**13.15-14.00**

**What to do (and not to do) with corporate address data**

Matthias Winterhager, Bielefeld University, Institute of Science and  
Technology Studies (IWT), Germany

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**14.00-14.45**

**Introduction to Bibliometric Data Sources**

Wolfgang Glänzel, Centre for R&D Monitoring (ECOOM), Katholieke  
Universiteit Leuven, Belgium / Juan Gorraiz, Bibliometrics  
Department, University of Vienna, Austria

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**14.45-15.00**

**Coffee break**

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**15.00-15.45**

**Web of Knowledge – Tutorial**

**Creating and Supporting Innovative Research Pathways**

Jeffrey Clovis, Senior Director, Customer Education & Sales Support,  
Scientific & Scholarly Research, Thomson Reuters

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**15.45-16.30**

**Assessing faculty productivity and institutional research performance: Using publication and citation key performance indicators**

Jeffrey Clovis, Senior Director, Customer Education & Sales Support,  
Scientific & Scholarly Research, Thomson Reuters

# programme seminars

## September 11th 2011: Pre-Programme

14:00-16:00

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### „Bibliometrics in a Nutshell“ – Crash Course for Newbies

Wolfgang Glänzel, Centre for R&D Monitoring (ECCOM), Katholieke Universiteit Leuven, Belgium / Juan Gorraiz, Bibliometrics Department, University of Vienna, Austria / Christian Gumpenberger, Bibliometrics Department, University of Vienna, Austria / Stefan Hornbostel, Institute for Research Information and Quality Assurance (iFQ), Germany; Humboldt-Universität (HU) zu Berlin / Sybille Hinze, Institute for Research Information and Quality Assurance (iFQ), Germany

## September 14th 2011: Introduction of Bibliometric Indicators

09.00-10.30

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### Parallel Sessions Group 1: Journal Impact Measures

Wolfgang Glänzel, Centre for R&D Monitoring (ECCOM), Katholieke Universiteit Leuven, Belgium / Juan Gorraiz, Bibliometrics Department, University of Vienna, Austria

### Parallel Sessions Group 2: h-index and related measures

Jeffrey Demaine, iFQ – Institut für Forschungsinformation und Qualitätssicherung, Germany / William Peter Dinkel, Institute for Research Information and Quality Assurance (iFQ), Germany

10.30-10.45

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### Coffee break

10.45-12.15

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### Parallel Sessions Group 1: h-index and related measures

Jeffrey Demaine, Institute for Research Information and Quality Assurance (iFQ), Germany / William Peter Dinkel, Institute for Research Information and Quality Assurance (iFQ), Germany

### Parallel Sessions Group 2: Journal Impact Measures

Wolfgang Glänzel, Centre for R&D Monitoring (ECCOM), Katholieke Universiteit Leuven, Belgium / Juan Gorraiz, Bibliometrics Department, University of Vienna, Austria

12.15-13.15	Lunch break
13.15-14.45	Hands-on Session Groups 1 & 2
14.45-15.00	Coffee break
15.00-16.30	Hands-on Session Groups 1 & 2

## September 15th 2011: Focus Topics

09.00-12.15 incl. break	<b>Parallel Sessions Group 1: Cooperation, Co-authorship, Social Networks</b> András Schubert, Institute for Research Organisation, Hungarian Academy of Sciences, Hungary	<b>Parallel Sessions Group 2: Mapping Science (on the basis of Bibexcel Software)</b> Olle Persson, Sociology Department, Umeå universitet, Sweden
12.15-13.15	Lunch break	
13.15-16.30 incl. break	<b>Parallel Sessions Group 1: Mapping Science (on the basis of Bibexcel Software)</b> Olle Persson, Sociology Department, Umeå universitet, Sweden	<b>Parallel Sessions Group 2: Cooperation, Co-authorship, Social Networks</b> András Schubert, Institute for Research Organisation, Hungarian Academy of Sciences, Hungary
17:30	<b>Social Event:</b> Combined guided tour through the premises of the Austrian National Library – State Hall and the Globe Museum (about 90 minutes)	

## September 16th 2011 Workshop

**09.00-12.15**

incl. break

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### **Research Evaluation in Practice 1**

Wolfgang Glänzel, Centre for R&D Monitoring (ECOOM), Katholieke Universiteit Leuven, Belgium / Juan Gorraiz, Bibliometrics Department, University of Vienna, Austria / Stefan Hornbostel, Institute for Research Information and Quality Assurance (iFQ), Germany; Humboldt-Universität (HU) zu Berlin / Sybille Hinze, Institute for Research Information and Quality Assurance (iFQ), Germany

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**12.15-13.30**

### **Lunch break**

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**13.30-16.00**

### **Research Evaluation in Practice 2**

Wolfgang Glänzel, Centre for R&D Monitoring (ECOOM), Katholieke Universiteit Leuven, Belgium / Juan Gorraiz, Bibliometrics Department, University of Vienna, Austria / Stefan Hornbostel, Institute for Research Information and Quality Assurance (iFQ), Germany; Humboldt-Universität (HU) zu Berlin / Sybille Hinze, Institute for Research Information and Quality Assurance (iFQ), Germany



# abstracts

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## History and Institutionalization of Scientometrics

**Wolfgang Glänzel**, Centre for R&D Monitoring (ECOOM), Katholieke Universiteit Leuven, Belgium

**Stefan Hornbostel**, Institute for Research Information and Quality Assurance (iFQ), Germany; Humboldt-Universität (HU) zu Berlin

This lecture describes the context from which the field of scientometrics/bibliometrics has emerged. The discipline of scientometrics characterised as a research field in the intersection of information science and science studies. Its emergence is closely linked to the growth of scientific information in the 20th century and the evolution from science to what de Solla Price called 'big science'. The thematic and geographic diffusion of scientometrics since the 1960s, its present structure as well as the growing number of contemporary applications is discussed. Special attention is paid to the institutionalization process of the field; important milestones in the development of the field and in its institutionalization are presented. Finally, the consequences of the 'perspective shift' in bibliometrics through science policy use, economic interests and utilisation within the scientific reputation system, as well as the enormous acceleration of the development of our field caused by the IT revolution during the last fifteen years are discussed.

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## New developments in bibliometric methods for evaluation and mapping of scientific research

**Ton van Raan**, Center for Science and Technology Studies (CWTS), Leiden University, The Netherlands

In this lecture we present an overview of new developments in 'measuring science' based on bibliometric methods. The measurement of research performance is addressed including aspects such as interdisciplinarity, collaboration, 'knowledge users', scientific excellence, and the role of journals. It is demonstrated that advanced bibliometric methods are an indispensable element next to peer review in research evaluation procedures, particularly at the level of research groups, university departments, institutes as well as for the assessment of research around important socio-economic themes. Central topics are: construction of performance indicators on a solid mathematical and statistical basis and their empirical behavior and functionality; network-based definition of research fields and proper normalization procedures; impact distribution of impact within fields and within journals; indicators for the engineering, social sciences and humanities fields; ranking and benchmarking of universities. We conclude the lecture with the latest developments in network analysis and mapping of science. These maps are unique instruments to discover patterns in the structure of scientific fields, to identify processes of knowledge dissemination, and to visualize the dynamics of scientific developments. Basic elements

of clustering and layout phenomena in networks and the consequences for improvement of science maps will be discussed.

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## **Bibliometrics in the History and Philosophy of Science**

**Werner Marx**, Central Information Service, Max Planck Institute for Solid State Research, Stuttgart, Germany

This talk deals with the application of bibliometrics to historical papers. At first, the accessibility of historical papers (i.e., papers published prior to around 1950) and their citation counts through the various databases is discussed. After this, the search possibilities in the Century of Science archive under Web of Science, the currently most important source of historical papers and their citations, are briefly explained. Furthermore, the limitations and shortcomings caused by database errors, complex author and journal names, incorrect citations, and reference mutations are exemplified. Informal citations and obliteration by incorporation of early works are discussed. Moreover, a method for the time-adjustment of citation counts of early papers is presented and the h-index of pioneers in the field of physics is determined. Finally, the usefulness of the HistCite software for the historical reconstruction of a scientific break-through from the perspective of bibliometrics is demonstrated. As a case study, the emergence of modern geophysics through the development of plate tectonics is visualized. The results are shortly discussed in the context of the Kuhnian philosophy of science.

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## **New developments in the use of bibliometric tools in research assessment**

**Henk F. Moed**, Elsevier, Amsterdam, The Netherlands

Since research performance is more and more regarded as a key factor in economic performance and societal welfare, research assessment has become a major issue for a wide range of stakeholders, and there is an increasing concern for research quality and excellence, for transparency, accountability, comparability and competition. The primary purpose of my contribution is to show the multi-dimensionality of the concept of research performance. It presents the notion of the multi-dimensional research assessment matrix, which was introduced in a Report published in 2010 by an Expert Group on the Assessment of university Based Research (AUBR), installed by the European Commission. If one is engaged in a research assessment process, one has to decide which methodology should be used, which indicators calculated, and which data collected. Therefore, one should address a series of questions; their answers determine which methodology and types of indicators should be used. Each question relates to a particular dimension of the research assessment process. Global university rankings have gained a strong interest both from managers, researchers and the general public. Although such rankings are marketing tools rather than research management tools, underlying data constitute a rich source for secondary analyses of policy-relevant issues that help testing policy assumptions. A second main purpose of my lecture is to illustrate this.

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## **The application of scientometrics to science and technology policy**

**Koenraad Debackere**, Katholieke Universiteit Leuven, Belgium

Science and technology have become major items on the policy agenda. As a consequence, the need for appropriate indicator development to underpin science and technology policy has increased dramatically over the last decades. The field of scientometrics has been one of the primary contributors to the development and use of indicators for science and technology policy. The interaction between the field of scientometrics and its accomplishments on the one hand and its uses in the science and technology policy arena on the other hand, therefore warrants closer attention. During this presentation, the focus will be on (a) mapping the various indicator needs of science and technology policy, (b) linking those needs to recent scientometric developments, (c) listing dos and don'ts of the deployment of scientometric indicators in the policy arena, and (4) some illustrative cases. This overview will familiarize esss participants with the judicious application of advances in scientometrics to science and technology policy.

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## **Bibliometrics, Research Evaluation and National Science Policy: What Works and What Goes Wrong?**

**Jonathan Adams**, Evidence Thomson Reuters, Leeds UK

Bibliometrics are a valuable tool for science policy makers and for agencies that carry out research evaluation. First, they are much cheaper than peer review. Second, they are a very effective way of challenging subjective analysis with objective data. Thus, the data-peer combination provides a very effective balance. The design of effective research evaluation is not simple and it needs to be part of the baseline planning process for any programme. Bibliometrics should also be used alongside other data, for example: on resources, people and outcomes. Too often the data are requested at a late stage, when no baseline is available. The wrong tests are used because they are the easy ones to apply or they just use the 'available data'. This lecture will discuss examples of past policy that has relied on assumptions rather than proper evaluation. It will also provide recent examples of research evaluation that has provided conclusions that were contrary to expectations. Research organisations are complex and deserve a more complete evaluation picture than simplistic, single-value indicators – loved by policy committees – can provide. The lecture will discuss what needs to be done to create multi-indicator, multi-discipline perspectives and it will provide some examples of what is currently being developed.

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## Scopus in-person tutorial

**Arthur Eger**, Customer Development Manager, Elsevier B.V.

- Registering and Logging In
- Performing a Document Search
- Reviewing Search Results
- Reviewing Documents
- Browsing and Analysing Journals
- Using Personalised Features
- Author and Affiliation Searching
- Cited Reference Searching

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## Metrics for Research Evaluation: Indicators, Methods and Mathematical Foundations

**Wolfgang Glänzel**, Centre for R&D Monitoring (ECCOM), Katholieke Universiteit Leuven, Belgium

**Sybille Hinze**, Institute for Research Information and Quality Assurance (iFQ), Germany

Research evaluation is one important, however, not the only field of application of bibliometric methods. Bibliometrics depicts several essential aspects of scientific activities by quantitative and statistical methods and its output proved to be a valuable supplement to qualitative methods such as peer reviews. The lecture briefly describes the mathematical foundation and basic postulates of bibliometrics, explains what publications and citations stand for, and how observations have to be assigned to the actual units of analysis, which may represent different levels of aggregation usually characterised as the macro, meso and micro level. This is followed by the introduction of bibliometric indicators reflecting “productivity” (i.e., publication and patenting activity), scientific collaboration (co-authorships) and impact (citations and related indicators) and the discussion of how to deal with and how to interpret the respective indicators. Special attention is paid to basic issues such as the selection criteria for source items, document types, the choice of appropriate time windows for observation, the question of which factors are influencing publication activity and citation impact and how to treat

self-citations. Essential tasks in any comparative bibliometric study are subject delineation and classification. These tasks are, on the one hand, closely linked to database-related issues but also to advanced retrieval and clustering techniques. Here, two of the most important applications are bibliometric domain studies and the determination of national and institutional publication profiles, which are briefly discussed too.

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## Mapping of Science

**Bart Thijs**, Centre for R&D Monitoring (ECOOM), Dept MSI, Katholieke Universiteit Leuven, Belgium

Mapping of Science is the application of powerful statistical tools and analytical techniques to uncover the structure or development of science. It can be applied to all entities associated with science like disciplines, journals, institutions and researchers. Specialized scientometric tools like co-citation analysis, bibliographic coupling or co-word analysis were already developed and applied in the seventies and eighties of the twentieth century. New techniques like text mining or hybrid approaches are in the latest years. This lecture will focus both on the classical approaches as on the new techniques in an application-oriented approach within a solid theoretical framework.

Numerical representation of relations: Just like traditional cartography tries to model and communicate spatial information, mapping of science is about modelling quantitative relations between entities. In this process three crucial decisions have to be made.

1. 2. 3. Which are the entities to be plotted? Which quantitative measure will be used to describe the relation among entities? Which analytical tool is appropriate?

This lecture will focus mainly on different measures of relations between entities. Relations based on citations and references include bibliographic coupling, co- and cross-citation. Other direct links between entities include co-authorship, institutional collaboration or international collaboration. Also lexical approaches like co-word analysis and text mining will be tackled. Each of these measures have their own properties which can have strong implications on the applicability of the analytical techniques. In order to improve the distinctive capabilities of these measures new hybrid approaches have been proposed.

Analytical techniques: The lecture will also deal with several analytical tools for both supervised and unsupervised classification. Clustering techniques like k-means or Ward's hierarchical clustering are proven techniques to classify the entities. Neural networks and Self Organizing Maps can also be applied in bibliometrics. Network theory describes the relation and the entities in terms of nodes and ties (or edges and links).

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## Network Analyses

**Edgar Schiebel**, Head of Technology Management, AIT Austrian Institute of Technology GmbH, Austria

Science mapping has recently gained increased attention in bibliometrics and scientometrics. The visualization of relational connections needed for co-author, co-affiliation and co-citation analysis or bibliographic coupling has made great progress over the last years, providing new insights into network structures of authorships and organizations. Additionally network indicators have become part of scientometric research methods. Multidimensional relationships can also be visualized in a network structure to draw maps of knowledge bases obtained from co-citation analysis. Co-citation is one representation of a bipartite graph defined by publications and their reference lists. Another representation will be presented is bibliographic coupling of publications by common references. After a general introduction to this research field, some basic theoretical remarks will be given on relational bibliometric techniques and their visualization using a spring model. The topology of the two dimensional density distribution of bibliographically coupled publications will finally be presented. The visualization techniques will be demonstrated by numerous practical examples about research on batteries, casting and tribology.

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## What to do (and not to do) with corporate address data

**Matthias Winterhager**, Bielefeld University, Institute of Science and Technology Studies (IWT), Germany

Since the introduction of the „Corporate Index“ section in 1965 as part of the Science Citation Index this data element has been a major source for all kinds of bibliometric analyses dealing with geographical and institutional aspects of research performance. In the age of ranking, complete and correct assignment of scientific publications to their institutional origins („work done at“) has become a most important issue for institutions. Not only authors, but also organisations and institutes are more and more forced to keep accurate records of their publication output.

Are modern bibliometric databases like Web of Science or Scopus „ready to use“ for doing institutional and geographical analyses? To answer this question we will have a close look at the relevant data fields. Main problems of data quality will be shown and major types of errors and their consequences will be discussed.

Standardisation, verification and the introduction of identifiers can help to overcome the problems of data quality. The approach of the German competence centre for bibliometrics will be demonstrated.

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## Introduction to Bibliometric Data Sources

**Wolfgang Glänzel**, Centre for R&D Monitoring (ECCOM), Katholieke Universiteit Leuven, Belgium

**Juan Gorraiz**, Bibliometrics Department, University of Vienna, Austria

This talk is about the specific requirements for bibliographical data sources to be met in regard to their suitability for bibliometric application. Furthermore relevant issues like coverage, representativeness and selection criteria are considered.

Any appropriate bibliography can serve as data source for a bibliometric study, however, comparative studies and large-scale analyses require large standardized data sources such as provided by bibliographic databases.

After a short general introduction providing background information, the main features of bibliographic databases are discussed with special focus on the question of which features are useful, essential or indispensable for bibliometric use. Most databases are designed for information retrieval and thus not necessarily fit for metric applications. In this context some basic features are introduced using examples from different databases. Distinction is made between specialized subject databases and multidisciplinary databases. In particular, the opportunities and limitations of the three major and multidisciplinary data sources – Web of Science, SCOPUS and Google Scholar – are discussed.

Alternatively subject specific databases (e.g. “MathSciNet”, “SciFinder”), patent databases (e.g. “Derwent Innovations Index”, “Espacenet (PATSTAT)”) or pilot projects for citation indexing on the web (e.g. “Citebase”, “CiteseerX” – all based on open access archives) are presented and examined critically regarding their beneficial potential for data enrichment in bibliometric analyses.

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## **Web of Knowledge – Tutorial Creating and Supporting Innovative Research Pathways**

**Jeffrey Clovis**, Senior Director, Customer Education & Sales Support, Scientific & Scholarly Research, Thomson Reuters

For over 50 years Thomson Reuters has ensured high quality, consistent and thorough bibliographic data and reference capture through extensive bibliographic policy standards. The content and tools available within individual TR resources are now widely used by over 5,300 academic institutions – by both librarians and researchers as a natural part of the research process. These tools include unique, multidisciplinary cited reference searching and navigation, alerting, results analysis and refinement (through Web of Science, Current Contents Connect and BIOSIS resources), citation-based performance measures (through ISI Journal Citation Reports® and ISI Essential Science Indicators), and personal bibliographic management (EndNote). The Web of Knowledge platform takes these tools and new functions and technologies to the next level, offering them within an integrated environment and adding new functionality and efficiency along the way. We will take a look at the data, indexing and platform and examine both its simplicity and powerful search options.

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## **Assessing faculty productivity and institutional research performance: Using publication and citation key performance indicators**

**Jeffrey Clovis**, Senior Director, Customer Education & Sales Support, Scientific & Scholarly Research, Thomson Reuters

Institutions must demonstrate return on investment in all areas, including sponsored research. This presentation will cover various bibliometric indicators used to measure research performance, including article output, citation count, h-index, citation impact, etc. Assessment at the institutional, as well as researcher level will also be discussed. We will begin with a discussion by Thomson Reuters about how universities used citation metrics for research evaluation. Universities, government bodies, and corporations must decide what research should be supported and what should not, or which research projects and researchers should receive more support than others. Increasingly, universities must demonstrate their special capabilities to a variety of constituencies. Most universities must identify a mission, develop a strategy for meeting it, and market themselves to students and supporters. Indeed, every university must have a clear, evidence-based understanding of the institution's performance towards its goals and mission. This understanding is achieved and maintained through ongoing evaluation.



# lecturers

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## Jonathan Adams

Director of Research Evaluation,  
Thomson Reuters



Dr Jonathan Adams was the lead founder of Evidence Ltd, and is now Director of Research Evaluation for Thomson Reuters Scientific. Dr Adams has published over 100 articles

in research journals and scholarly books on research policy.

Between 1979 and 1989 he has worked at different universities and colleges in the UK. He was a member of the science policy staff of the Advisory Board for the Research Councils from 1989-1992 and was Leeds University's Director of Research Strategy (1993-1997). Amongst others he recently was a member of the Australian Research Council (ARC), chaired the EC Monitoring Committee for the Evaluation of FP6 and has been invited to be an expert advisor to the interim evaluation of FP7.

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## Jeffrey Clovis

Senior Director, Customer Education & Sales Support, Scientific & Scholarly Research, Thomson Reuters



Trained as a biologist and then a Germanic language specialist and translator, Jeff Clovis has been working in the field of Information Sciences for the past thirty years at

Thomson Reuters (formerly ISI and Thomson Scientific), holding a variety of positions for this period, mainly in Editorial Development, Product Production, Business and Technology Planning, Product Development, Business Development and finally Customer Education & Sales Support. He was jointly responsible for: the design of the Image based production system used in processing all journals and conference proceedings, the development of Web of Science and the Derwent Innovations Index, as well as responsible for the addition and development of BIOSIS Previews and CAB Abstracts from CABI Publishing on the Web of Knowledge platform. He is currently Senior Director, Customer Education & Sales Support and in this position is responsible for supporting all Web products and content available for Academic & Government markets in North America, Latin America, Europe, the Middle East & Africa – including all new tools and content added to the platform and all customer education activities for the Americas, Europe, the Middle East and Africa.

## lecturers

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### Koenraad Debackere

Katholieke Universiteit (K.U.) Leuven,  
Belgium



Koenraad Debackere has been with K.U. Leuven since 1995. He obtained his Ph.D. in Management with an ICM-fellowship at the University of Gent after stays as an ICM-fellow and

an ICRMOT research assistant at MIT Sloan School of Management. He was a Fulbright-Hays post-doctoral fellow at MIT in 1991-1992. In 1995 he became professor at K.U. Leuven. His research has focused on the area of technology and innovation management and policy, the development of indicators for measuring the linkage between science and technology, the design and use of bibliometric indicators for science policy purposes and the role of entrepreneurial universities in economic development. He is coordinator of the Centre for R&D Monitoring (ECOOM) of the Flemish government. He is also actively engaged in technology transfer activity as managing director of K.U. Leuven Research & Development and Chairman of the Gemma Frisius Fonds (the venture fund) of the K.U. Leuven.

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### Jeffrey Demaine

Institute for Research Information and  
Quality Assurance (iFQ), Germany



Jeffrey Demaine is a research associate at the Institut für Forschungsinformation und Qualitätssicherung (iFQ) in Bonn, Germany. Having worked for more than

a dozen years at the National Research Council in Ottawa, Canada, Jeffrey has considerable experience in turning theories of information science into applications for exploring patterns of communication in science. His past research projects have focused on the application of Social Network Analysis techniques in digital library interfaces, and the visualization of bibliometric information. His current research at iFQ addresses the problem of author disambiguation and proposes an automated matching of homonymous author names based on their shared metadata.

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**William Dinkel**

GESIS – Leibniz Institute for the Social Sciences, Germany



William Dinkel is a researcher at GESIS and a specialist in bibliometric technologies. He has conducted a number of evaluative and descriptive bibliometric analyses for

the European Research Council, the German ministry for Education and Research and the German Council of Science and Humanities. His current research at GESIS aims at developing methods and indicators for depicting errors and biases in bibliometric data with a particular focus on the social sciences.

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**Arthur Eger**

Customer Development Manager, Elsevier B.V.



Arthur Eger is responsible for organizing User Education activities for Academic institutions and Governmental organizations in the German speaking countries. He previously

worked in various roles for leading publishers and the University of Utrecht (Holland). Arthur is author of a number of articles on issues on library and information science and bibliometrics and holds a MSc (with distinction) from the University of Glamorgan (UK), where he is currently pursuing his Doctorate in Business Administration.

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**Wolfgang Glänzel**

Katholieke Universiteit (K.U.) Leuven, Belgium



Wolfgang Glänzel is at K.U.Leuven since 2002. He is Director of Centre for R&D Monitoring (ECCOM) of the Flemish government and Professor at K.U. Leuven. He is also affiliated

with the Institute for Research Organisation of the Hungarian Academy of Sciences. Wolfgang Glänzel is skilled mathematician. He holds a doctorate in mathematics from the Eötvös University in Budapest (1984) and a PhD in Science Studies from Leiden University (1997). Wolfgang Glänzel worked at the Library of the Hungarian Academy of Sciences between 1980 and 2001. Wolfgang Glänzel is Research Fellow of the Alexander von Humboldt Foundation. He was awarded the Derek de Solla Price Medal "for outstanding contributions to quantitative studies of science" in 1999.

# lecturers

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## Juan Gorraiz

University of Vienna, Austria



Juan Gorraiz studied physics at the University of Madrid and at the University of Vienna, where he obtained his Doctor's degree. He is Head of the Document Delivery Services of

the Central Library for Physics and of the Bibliometrics Department of the Library and Archive Services, University of Vienna. He is working on bibliometric analysis and studies since 1992 and is furthermore teaching at the university course „Library and Information Studies“. Organizer and programme chair of the „10th International Conference on Science & Technical Indicators“ 2008 in Vienna.

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## Christian Gumpenberger

University of Vienna, Austria



Christian Gumpenberger has a Doctor's degree in Veterinary Medicine from the University of Veterinary Medicine Vienna and a Master's degree in Library and Information Studies

from the Danube University Krems. He was Head of the Department of Public Services and Reference Librarians at the University Library of the University of Veterinary Medicine Vienna, Head of the Novartis Knowledge Center Vienna as well as Global Project Manager for the Novartis Institutional Repository Project & Open Access Champion at Novartis. He currently runs his own information consultancy business focussing on project management in the field of new trends in scholarly communication, especially Open Access. He is a member of the Bibliometrics Department of the Library and Archive Services, University of Vienna and in charge of the *esss* administration.

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## Jörg Hellwig

Product Sales Manager  
Databases, Elsevier B.V.



PhD in Chemistry Georg August University, Göttingen, Germany. Several years experience in Pharmaceutical Business. Since three years with Elsevier as Product Sales Manager Databases

for Research Focused Institutions in Europe.

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**Stefan Hornbostel**

Institute for Research Information and Quality Assurance (iFQ), Germany, Humboldt-Universität (HU) zu Berlin



Stefan Hornbostel (Director of the iFQ) studied Social Sciences at the University of Göttingen. He did his PhD at the Freie Universität Berlin. After his studies, he worked at

the Universities of Kassel, Cologne, Jena and Dortmund, as well as at the Center of Higher Education Development (CHE – Centrum für Hochschulentwicklung). Stefan Hornbostel is Professor at the Department of Social Sciences (Science Studies) at the Humboldt University of Berlin.

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**Sybille Hinze**

Institute for Research Information and Quality Assurance (iFQ), Germany



Sybille Hinze (Deputy Director iFQ) graduated in 'Management of Science' from Humboldt-University. From 1990 to 1997 she worked as a research fellow at the Fraunhofer Institute for Systems and Innovation Research (Fraunhofer ISI). In 1997, she got her PhD from Leiden University, Centre for Science and Technology Studies (CWTS), the Netherlands. From 1997-1999 she was a postdoctoral fellow at the Research Evaluation and

Policy Project, Australian National University, Canberra. From 1999 to 2008 she held a senior researcher position at Fraunhofer ISI and from 2006 to 2008 she was deputy head of the competence centre "Policy and Regions". From March 2005 to August 2006 she was seconded to the European Commission, DG Research, Unit Programming, Monitoring, and Evaluation. Sybille Hinze joined the iFQ in August 2008.

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**Werner Marx**

Central Information Service, Max Planck Institute for Solid State Research, Stuttgart, Germany



Studied Chemistry at the University of Bonn and prepared his diploma and doctoral thesis in Physical Chemistry, both dealing with atmospheric chemistry (stratospheric ozone

depletion). In 1982 he joined the Central Information Service for the institutes of the Chemical Physical Technical Section of the Max Planck Society, located at the Max Planck Institute for Solid State Research in Stuttgart. Since 1994 he is head of this service which offers support with respect to all kinds of scientific information. The target groups are researchers, librarians, administrators and decision-makers of the Max Planck Society. The service provides assistance to access, explore and exploit the wealth of information resources available worldwide. Establishing impact data for research evaluation has become a major

# lecturers

subject. Several studies address the need of further background information when using and interpreting citation data for research evaluation. His special interests are the potential of databases and information tools for more comprehensive information demands and the application of bibliometrics to the history of science.

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## Henk Moed

Senior Scientific Advisor, Elsevier



Henk F. Moed is Senior Scientific Advisor at Elsevier in Amsterdam as from 1 February 2010. He is a former senior staff member, – and during the last few months before his departure, a full

professor of research assessment methodologies – at the Centre for Science and Technology Studies (CWTS), in the Department (Faculty) of Social Sciences at Leiden University, as from 1986. He obtained a Ph.D. degree in Science Studies at the University of Leiden in 1989. He has been active in numerous research topics, including: the creation of bibliometric databases from raw data from Thomson Scientific's Web of Science and Elsevier's Scopus; analysis of inaccuracies in citation matching; assessment of the potentialities and pitfalls of journal impact factors; the development and application of science indicators for the measurement of research performance in the basic natural- and life sciences; the use of bibliometric indicators as a tool to assess peer review procedures; the development and applica-

tion of performance indicators in social sciences and humanities; studies of the effects of 'Open Access' upon research impact and studies of patterns in 'usage' (downloading) behaviour of users of electronic scientific publication warehouses; studies of the effects of the use of bibliometric indicators upon scientific authors and journal publishers. He published over 50 research articles, and is editor of several journals in his field. He is a winner of the Derek de Solla Price Award in 1999. He published in 2005 a monograph, *Citation Analysis in Research Evaluation* (Springer, 346 pp.), which is one of the very few textbooks in the field.

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## Olle Persson

Sociology Department, Umeå universitet, Sweden



Olle Persson, born in 1949. His main line of research is Scholarly Communication among Scientists and Engineers. He is professor in Library and Information Science and the founder of the Inforsk research group. In 2004-2008 he was Research School Director for NORS-LIS, a Nordic research school in library & information science. In the same period he served as head of the sociology department. During the last 25 years he has specialised in the field of science studies and has a leading role in the development of bibliometric research techniques.

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## Edgar Schiebel

Head of Technology Management, AIT Austrian Institute of Technology GmbH, Austria



Edgar Schiebel graduated in mechanical engineering at the University Karlsruhe. Afterwards he obtained the PhD at the Vienna University of Technology in manage-

ment science. Since 1996 he has been the head of the unit Technology Management at Austrian Institute of Technology GmbH, Austria. He works on bibliometric indicators for strategic management of expert organizations, the monitoring of science, evaluation and science policy. Science mapping and methods to observe science dynamics to identify emerging research issues, networks of scientists and affiliations are in his central research interest. Public authorities as well as companies are customers for applied research and consultancy. Edgar Schiebel has published journal articles in bibliometrics and scientometrics, book chapters about emerging technology and research issues and numerous research reports, is member of international committees of scientific conferences, guest editor of the journals *Scientometrics* and *Research Evaluation*.

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## András Schubert

Institute for Research Organisation, Hungarian Academy of Sciences, Hungary



András Schubert holds a PhD in chemistry from the Technical University of Budapest (Hungary). He switched from physical chemistry to library & information science in

1979, when he joined to the Information Science & Scientometrics Research Group (ISSRU) of the Hungarian Academy of Science (Budapest, Hungary). As the Head of the Bibliometrics Service, he lead dozens of research projects, published more than a hundred research papers and held numerous lectures on conferences and courses. His main research interest is the construction and analysis of scientometric indicators (particularly at macro-level) and the study of the network structure of scientific research communities. He is the Editor of the journal *Scientometrics*; won the Derek John de Solla Price Medal in 1993; is listed in the ISI Highly Cited Researchers database as the only representant of scientometrics.

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**Bart Thijs**

Centre for R&D Monitoring (ECCOOM), Dept  
MSI, Katholieke Universiteit Leuven, Belgium



Bart Thijs is a research expert in bibliometrics at the Katholieke Universiteit Leuven. In 1999 he graduated at the same university in Psychology with a specialization in

Statistics. He spent several years in industry as a statistical consultant, there he gained experience in the application of automated data analysis. In 2002 he joined the newly created policy research centre on R&D statistics at the K.U.Leuven. In 2009 he received his PhD from the Leiden University. Nowadays he is a senior researcher at the Centre for R&D Monitoring (ECCOOM). He works on mapping of science based on the application of hybrid techniques.

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**Anthony van Raan**

CWTS – Centre for Science and Technology Studies, Leiden University, The Netherlands



Ton (Anthony) van Raan is Professor of Quantitative Studies of Science, Leiden University. MSc Physics and PhD physics (1973) University of Utrecht. Lecturer and researcher

(physics, astrophysics) in Utrecht, Bielefeld and Leiden. Visiting scientist in several

universities and research institutes in the US, UK, and France. Previous work in experimental atomic and molecular physics, 'field switch' to science studies. Winner of the Derek de Solla Price Award 1995. Main interests: application of bibliometric indicators in research evaluation, science as a 'self-organizing' cognitive ecosystem, statistical properties of bibliometric indicators, ranking and benchmarking of universities.

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**Matthias Winterhager**

Bielefeld University, Institute of Science and Technology Studies (IWT), Germany

Matthias Winterhager is senior researcher and coordinator of bibliometric studies at Bielefeld University, Institute of Science and Technology Studies (IWT), Germany. He studied electrical engineering, education, psychology and sociology at TU Berlin and Bielefeld University. From 1980 he worked together with Peter Weingart on science indicators and quantitative studies of science at Bielefeld University. He is member of steering committee at the German Competence Centre for Bibliometrics ([www.bibliometrie.info](http://www.bibliometrie.info)).



## social event

### 15th September, 17.30

Combined guided tour through the premises of the Austrian National Library State Hall and the Globe Museum (about 90 minutes).



#### State Hall of the Austrian National Library

The Baroque State Hall is one of the world's most beautiful historic libraries. Emperor Charles VI (1685/1711 – 1740) ordered the construction of this jewel of secular Baroque architecture for his Court Library. The State Hall was built from 1723 till 1726 according to the plans of the famous court architect Johann Bernhard Fischer von Erlach, and carried out by his son Joseph Emanuel. The ceiling frescoes were completed in 1730 by the court painter Daniel Gran.



#### Globe Museum

The opening of the Museum, whose establishment can be traced back to the activities of Viennese globe connoisseurs, occurred in 1956. Nevertheless it can be proved that globes have been in the former Imperial Court Library as early as the 16th century. The main emphasis of the holdings is on terrestrial and celestial globes made before 1850. The Globe Museum has on loan the oldest extant terrestrial globe in Austria. Since December of 2005 the Globe Museum has been housed in the Palais Mollard in Herrengasse. It offers, as well as the valuable objects that may not be touched, the possibility of interactive contact with the materials at computer terminals and a virtual globe.

# location information

The esss is held in annual rotation at each of the organizing institutions. This year's host is the University of Vienna, Austria.

The historic main building of the University of Vienna is located on Wiener Ringstraße, close to the city centre and many famous places of interest. All esss venues are in close proximity to the university's main building.

## A

**Pre-programme  
(bibliometric crash course),  
11th of September:**

**Vienna University Library,  
Teinfaltstrasse Library,**

Teinfaltstraße 8, ground floor  
A-1010 Vienna

**Conference talks,  
12th and 13th of September:**

**Vienna University Library,  
Teinfaltstrasse Library,**

Teinfaltstraße 8, ground floor  
A-1010 Vienna

## B

**Seminars and Hands-on Sessions,  
14th-16th September:**

**IT Seminar Rooms 1 & 2  
(EDV Schulungsräume 1 & 2)**

Vienna University, Campus, Hof 7,  
Entrance 7.1, first floor  
Spitalgasse 2  
A-1090 Vienna

## C D

**Social event  
15th September:**

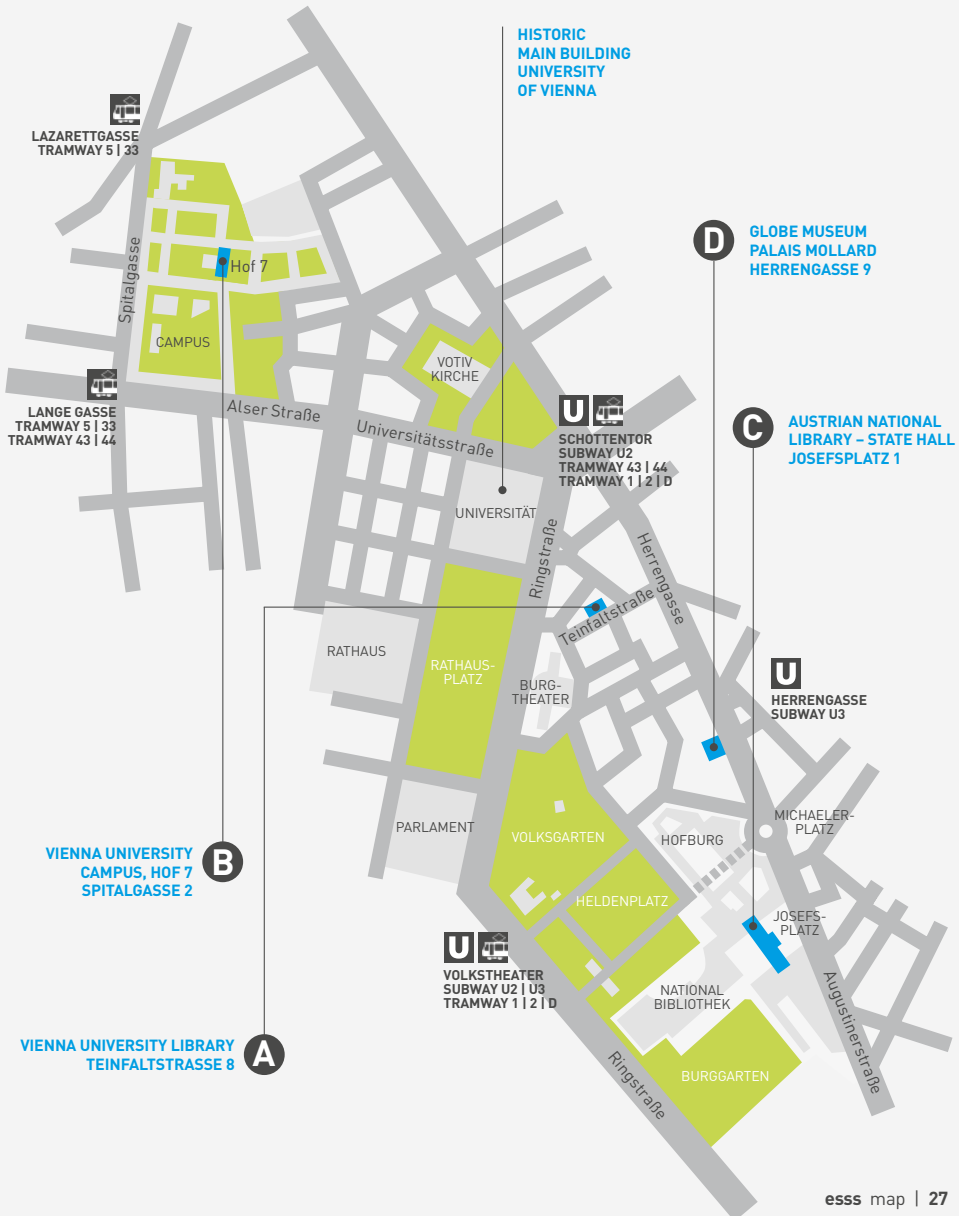
**Austrian National Library – State Hall**

Josefsplatz 1  
A-1010 Wien

**Globe Museum**

Palais Mollard, Herrengasse 9  
A-1010 Vienna

# map



HISTORIC  
MAIN BUILDING  
UNIVERSITY  
OF VIENNA

LAZARETTGASSE  
TRAMWAY 51 33

Hof 7

Spitalgasse

CAMPUS

VOTIV  
KIRCHE

Alser Straße

Universitätsstraße

**U**  
SCHOTTENTOR  
SUBWAY U2  
TRAMWAY 43 | 44  
TRAMWAY 1 | 2 | D

UNIVERSITÄT

Ringstraße

Herrengasse

**D** GLOBE MUSEUM  
PALAIS MOLLARD  
HERRENGASSE 9

**C** AUSTRIAN NATIONAL  
LIBRARY – STATE HALL  
JOSEFSPLATZ 1

**U**  
HERRENGASSE  
SUBWAY U3

RATHAUS

RATHAUS-  
PLATZ

BURG-  
THEATER

PARLAMENT

VOLKSGARTEN

HOFBURG

MICHAELER-  
PLATZ

**B** VIENNA UNIVERSITY  
CAMPUS, HOF 7  
SPITALGASSE 2

Teinfaltstraße

HELDENPLATZ

JOSEFS-  
PLATZ

**A** VIENNA UNIVERSITY LIBRARY  
TEINFALTSTRASSE 8

**U**  
VOLKSTHEATER  
SUBWAY U2 | U3  
TRAMWAY 1 | 2 | D

NATIONAL  
BIBLIOTHEK

BURGGARTEN

Ringstraße

Augustinerstraße

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**Event partners:**





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**2011**  
**VIENNA**

**programme**

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