



## INTERNATIONAL SYMPOSIUM

21<sup>st</sup> - 23<sup>rd</sup> September 2011 - Graz, Austria

### First Bulletin

# UFRIM

## URBAN FLOOD RISK MANAGEMENT

Approaches to enhance resilience of communities





## OVERVIEW EVENT SPONSORS



### Sponsorship details

The expenses that arise with such an event are predominantly financed with the registration fees that have to be paid by the participants. However, a difference remains - the acquisition of which should arise from the support of further institutions. We would be happy if your institution would participate and attribute to this event. In return we can offer you the following:

Position S1	Integration of the logo of your institution on the symposium website with an integrated link to your website	€ 300,--
Position S2	Print-ad of your organization in the size of width x height = 12 x 8 cm in the symposium programme, which is handed out to the participants, including the service of Position S1.	€ 600,--
Position S3	The same as in Position S2, but with a print-ad in the size of width x height = 12 x 17 cm.	€ 900,--

For questions please do not hesitate to contact us under +43 316 873-8361. We would welcome if you decided on one of the offers.



## WELCOME TO UFRIM

On behalf of the UFRIM - Organizing team it is my pleasure to invite you to participate in the Urban Flood Risk Management Symposium which will be held from 21<sup>st</sup> – 23<sup>rd</sup> of September at Graz University of Technology.

Within this year 2011 our University celebrates its 200 anniversary since inauguration with the aim for scientific and technical contributions to the development of the society. As one of the seven faculties, the Civil Engineering faculty plays an essential role in the development of infrastructure and locates at the cross border to nature, influencing it and being influenced by it. Hydraulic structures play an important role to make use of the regenerative water resources. During natural disasters these structures additionally play an important role to protect the infrastructure from being flooded and getting damaged.

To support the exchange of efforts undertaken for flood protection measures this International Symposium is organized. The broad focus of the Symposium is on Structural Flood Protection Measures, Flood Forecasting-Warning Systems and Non-Structural Measures, Flood Safety Assessment, Flood Management and Enhancements of Resilience, Flood History and Response, as well as on Social Aspects and Public Participation. The elaborated contributions to the Proceedings show the high interest to these topics.

A special focus of the UFRIM - Symposium is drawn to urban areas. As during the last decades – especially in already densely populated areas – the ramifications caused by floods got more and more lost in our minds. The last green surface in towns were sealed, brooks were banned into culverts and small channels. Due to these circumstances – especially during flash floods with high precipitation within a very short time period – the shortcomings were made evident. To mitigate losses in affected areas a solution of structural flood protection together with non-structural measures is needed. Such an integrative approach requires the close cooperation of the administration, rescue forces, and the population to cope with the residual risk.

To support the challenging tasks of Flood Risk Management in accordance to the European Flood directive the Participants to the Symposium with their contributions are encouraged to learn from each other. During the offered social events in Graz and the vicinity nearby it will be an easy task to communicate and exchange ideas.

We are looking forward to welcoming you in the World Cultural Heritage - the city of Graz - in the heart of Europe.

**Gerald Zenz**

*Chairman of the Organizing Team*



## SYMPOSIUM VENUE GRAZ

The symposium will be held in the city of Graz, the Cultural Capital of Europe 2003. Graz is located in Austria, in the heart of Europe, about 200 km south of Vienna and 300 km south east of Salzburg.

The charming city Graz, where tradition and modern spirit meet, will welcome you with an international smile and great warmth. Graz has 234,000 inhabitants and is the second largest city in Austria.

The UFRIM Symposium will be held in the historical building of Graz University of Technology, which dates back to 1811. The 200 anniversary of the university is celebrated this year.



### How to get to Graz University of Technology



#### By car

Leaving the highway „A2“ at the exit „Graz-Ost“ you have to follow the road „St. Peter Hauptstraße“ in the direction of the center.

#### By train

Graz has a railway station of „Österreichische Bundesbahnen“ (Austrian railways) and is a station for international and local trains. Buses and tramway cars take riders to the center and to the symposium venue.

#### By airplane

The airport of Graz is located about 10 km south of the city centre. There is a shuttle bus connection from the airport to the center of Graz. For the fastest and most convenient transport you should take a taxi.



## FORMAT OF THE UFRIM SYMPOSIUM

The UFRIM symposium is devoted to the broad topic of urban flood risk management with a special focus on approaches to enhance resilience of communities. The meeting will provide an excellent opportunity for scientists, engineers, and communities to present and exchange their experiences and the latest developments related to structural as well as non-structural measures, flood management as well as social aspects like risk communication and participation.

The symposium will have the following format:

- Special Plenary Lectures - Results of the 2<sup>nd</sup> Call of ERA-Net CRUE
- Technical Sessions
- Poster Session
- Technical Exhibition
- Study Tours

About 130 authors of accepted abstracts are invited to write a full-paper to the following topics:

<b>Topic A</b>	<b>Structural Flood Protection Measures</b>
<b>Topic B</b>	<b>Flood Forecasting, Warning Systems and other Non-Structural Measures</b>
<b>Topic C</b>	<b>Flood Safety Assessment</b>
<b>Topic D</b>	<b>Flood Management and Enhancement of Resilience</b>
<b>Topic E</b>	<b>Flood History and Response</b>
<b>Topic F</b>	<b>Social Aspects and Public Participation</b>

Details of topics and speakers in technical sessions and poster sessions will be updated on the conference webpage: [www.ufrim.tugraz.at](http://www.ufrim.tugraz.at)



## OVERVIEW OF THE SYMPOSIUM PROGRAMME

	Wednesday 21 <sup>st</sup> Sept.	Thursday 22 <sup>nd</sup> Sept.	Friday 23 <sup>rd</sup> Sept.				
07:30 - 08:00	Registration	Registration	Registration				
08:00 - 08:30							
08:30 - 09:00	Opening Ceremony	Scientific Programme	Study Tour A	Study Tour B			
09:00 - 09:30							
09:30 - 10:00	Scientific Programme Plenary Lectures: ERA-Net CRUE						
10:00 - 10:30							
10:30 - 11:00							
11:00 - 11:30							
11:30 - 12:00							
12:00 - 12:30	Lunch	Lunch					
12:30 - 13:00							
13:00 - 13:30	Scientific Programme	Scientific Programme					
13:30 - 14:00							
14:00 - 14:30							
14:30 - 15:00							
15:00 - 15:30							
15:30 - 16:00							
16:00 - 16:30							
16:30 - 17:00							
17:00 - 17:30		Guided Tour Laboratory					
17:30 - 18:00							
18:00 - 18:30		Get-together with snacks					
18:30 - 19:00							
19:00 - 19:30	Evening Event						
until 22:30							
until 23:30							





## SPECIAL PLENARY LECTURE ERA-Net CRUE



The ERA-Net CRUE project, funded within the Sixth EU Framework Programme, introduced structure within the area of European research on flood risk management (FRM). The vision for the ERA-Net CRUE action on flooding is to support and develop an extensive coordination and integration of regional, national, and European research programmes, projects, and policies in the FRM field.

The second ERA-Net CRUE Research Funding Initiative „Flood Resilient Communities – Managing the Consequences of Flooding“ was launched in support of the EU Floods Directive 2007/60/EC, which was introduced as a result of several severe flood events causing loss of life and property. Within this initiative seven international joint research projects with test sites all over Europe are funded and focus on a broad spectrum of issues related to the enhancement of resilience. In conjunction with the Final Symposium of the Funding Initiative, these projects are presented in a special plenary lecture session on Sept. 21<sup>st</sup>.

Major details on ERA-Net CRUE and the 2<sup>nd</sup> Research Funding Initiative are available on <http://www.crue-eranet.net>.

**Projects: DIANE-CM, FIM-FRAME, FREEMAN, IMRA, RISKMAP, SUFRI, UR-FLOOD**



## PLENARY LECTURE ERA-Net CRUE

The following persons have accepted our invitation to give a Special Plenary Lecture:



**EVERS MARIELE** (Germany)

*Enhancing Stakeholders Role for Reduction of Urban Flood Vulnerability by Collaborative Modelling (DIANE-CM)*



**KNOBLAUCH HELMUT** (Austria)

*Sustainable Strategies of Urban Flood Risk Management with Non Structural Measures to cope with the Residual Risk (SUFRI)*



**LANGAN SIMON** (Scotland)

*Uncertainty and Risk in Flood Communications in Europe (UR-Flood)*



**LUMBROSO DARREN** (UK)

*Flood Incident Management - a Framework for Improvement (FIM Frame)*



**MEYER VOLKER** (Germany)

*Improving Flood Risk Maps as a Means to Foster Public Participation and Raising Flood Risk Awareness - Recommendations from the RISK MAP Project*



**STICKLER THERESE** (Austria)

*Planning and Evaluating with new Participatory Flood Risk Management Tools (IMRA)*



**UYTTENDAELE TRUI PAULA** (Belgium)

*Flood Resilience Enhancement and Management (Freeman)*



**VANNEUVILLE WOUTER** (Belgium)

*Strengthening European Research for Flood Risk Management (ERA-Net CRUE)*





## STUDY TOUR

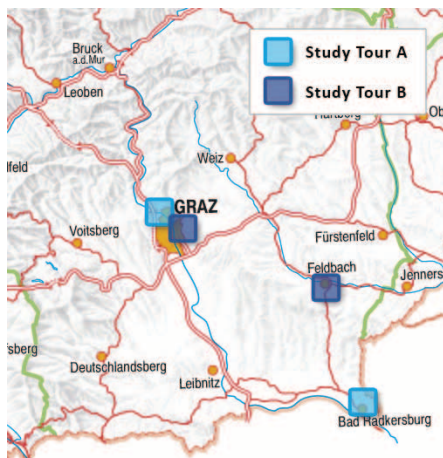
Study tours will be offered on **Friday, 23<sup>rd</sup> Sept. 2011** including urban flood protection and management of small streams in Graz (Andritz, Mariatrost) and in small cities in Styria (Bad Radkersburg, Feldbach).

### STUDY TOUR A

Flood Protection Bad Radkersburg  
Flood protection Graz-Andritz

### STUDY TOUR B

Flood protection Feldbach  
Flood protection Graz-Mariatrost



## COSTS

		Regular participant / Student / Accompanying person
<b>Tour A</b>	Bad Radkersburg, Graz-Andritz	€ 50 .--
<b>Tour B</b>	Feldbach, Graz-Mariatrost	€ 50 .--

The booking is to be carried out via our Conference Administration Tool Set on the website [www.ufrim.tugraz.at](http://www.ufrim.tugraz.at).



## STUDY TOUR A

### Bad Radkersburg



After the extreme flood event of 1965, an about 10 km long earthfill dam was built as flood protection measure for Radkersburg (at the Austrian side of the river), and a side wall for Gornja Radgona (at the Slovenian side) in the 1970<sup>th</sup>. The discharge analysis has shown that with new hydro data there is no flood protection of a 100-year-flood anymore. In the meantime, the risk and damage potential has increased rapidly because of the urban development of Bad Radkersburg (thermal bath, new hotels) in the protection of the dam. In the next years, the structural flood protection shall be recovered by sanitation of the flood protection dams and the side walls. Non-structural measures as warning systems, disaster management plans, self-precaution measures, and so on shall be worked out to reduce the flood risk.

### Graz / Andritz



In the recent years serious floodings occurred in the district Andritz in the north of Graz. The study tour will show the problematic of urban brooks in areas with a high population density, including the visit of structural measures as cross section broadening and river bed balance at the Schöckelbach as well as the flood retention basin ‚Am Eichengrund‘ at the Gabriachbach.



## STUDY TOUR B

### Feldbach



In the early 1980<sup>th</sup>, an earthfill dam was built as flood protection for the city Feldbach. In the meantime, similar to Bad Radkersburg, the risk potential has increased rapidly because of the settlement of industrial units in the protection of the dam. The flood discharge analysis 2007 has shown that a flood protection for a 100-year-flood is not feasible because of the dam's height. Nowadays, the dam will be reconstructed and heightened. Additionally non-structural measures are in planning stage.

On the occasion of the flood protection measures an urban spatial and scenic integration of the river Raab into the urban area of Feldbach takes place simultaneously. By the means of cycle paths and benches along the river as well as e.g. stairways and platforms, possibilities for an interaction with the water are developed and people become more sensitized also in regard to flood protection.

### Graz / Mariatrost



The situation in Graz - Mariatrost is similar to that in Graz - Andritz. Due to rapid growth of the settlement areas the space for the brooks decreased. After a quite long period without bigger flood events (since 1975) serious floods occurred in the recent years and the population is demanding solutions. The study tour will show the special situation of brooks in urban areas including structural measures as linear measures along the river and the newly built flood retention basin Fölling.

The retention basin is a combination between a concrete wall for the transverse section of the river and a homogenous earth dam for the remaining cross-section, for ecological reasons. Currently the City of Graz is installing a gauge system for flood forecasting in Graz, whereof one gauge is situated in the retention basin.



## REGISTRATION

### Registration

Register via internet <http://www.ufrim.tugraz.at>

### Registration Fee

	before 30 <sup>th</sup> June 2011	after 30 <sup>th</sup> June 2011
Full registration	€ 320,--	€ 390,--
Reduced student fee*	€ 180,--	

The registration fee includes:

- Symposium proceedings (book\*\* and CD-Rom)
- Attendance at all scientific programme
- Coffee breaks, lunches, and dinners

\* enrolled students aged below 30

\*\* only for full registration

### Study Tour Fee

The study tour fee including lunch is € 50,--

### Cancellation

If you find it necessary to cancel your registration completely, please notify the symposium office immediatly in writing. The cancellation terms are:

### Cancellation Fee

August 1 <sup>st</sup> until September 1 <sup>st</sup> 2011	50% of registration fee
After August 1 <sup>st</sup> 2011	100% of registration fee

Cancellation can only be accepted via email to [ufrim@tugraz.at](mailto:ufrim@tugraz.at).



## ACCOMODATION

Here you get an overview of the favorite hotels in the surrounding area of the UFRIM Symposium.

### H1 Hotel Gollner \*\*\*\*

Schlögelgasse 14, 8010 Graz, Austria  
 Phone: +43 316 822521 - 0  
 E-mail: [office@hotelgollner.at](mailto:office@hotelgollner.at)  
 Web: <http://hotelgollner.at/>  
 Single/Double room: € 91,-- / € 140,--

### H2 Hotel Mercure \*\*\*\*

Waltendorfer Gürtel 8 - 10, 8010 Graz, Austria  
 Phone: 43 316 826300 - 0  
 E-mail: [h2212@accor.com](mailto:h2212@accor.com)  
 Web: <http://www.mercure.com/gb/hotel-2212-mercure-graz-messe/index.shtml>  
 Single/Double room: € 79,-- / € 104,--

### H3 Hotel Weitzer \*\*\*\*

Grieskai 12 - 16, 8020 Graz, Austria  
 Phone: +43 316 703 - 0  
 E-mail: [hotel@weitzer.com](mailto:hotel@weitzer.com)  
 Internet: <http://www.hotelweitzer.com>  
 Single/Double room: € 99,-- / € 99,--

### H4 Hotel IBIS \*\*\*

Europaplatz 12, 8020 Graz, Austria  
 Phone: +43 316 7780  
 E-mail: [h1917@accor.com](mailto:h1917@accor.com)  
 Internet: <http://www.ibishotel.com/gb/hotel-1917-ibis-graz/index.shtml>  
 Single/Double room: € 73,-- / € 101,--

### H5 Hotel Novapark \*\*\*

Fischeraustr. 22, 8051 Graz, Austria  
 Phone: +43 316 682010 - 0  
 E-mail: [office@novapark.at](mailto:office@novapark.at)  
 Internet: <http://novapark.at>  
 Single/Double room: € 69,-- / € 105,--



**Check in time:** 12:00 (H4)  
 14:00 (H1, H2, H3, H5)

**Check out time:** 12:00 (H1, H2, H4, H5)  
 11:00 (H3)





## TECHNICAL EXHIBITION

For the symposium „Urban Flood Risk Management - Approaches to enhance resilience of communities“, which has been announced internationally, 200 colleague specialists are expected from European and foreign countries. On the occasion of the symposium an exhibition takes place at which organizations related to the conference topics can present their field of activity.

### EXHIBITION OPTIONS

For presentation purposes in the symposium area the organizer offers the following exhibition options:

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
OWN BOOTH	OWN BOOTH	TU GRAZ BOOTH	TU GRAZ BOOTH
Dimensions: 2 x 2 m	Dimensions: 2 x 3 m	Dimensions: 2 x 2 m	Dimensions: 2 x 3 m
<b>Included:</b> <ul style="list-style-type: none"> <li>• 1 regular participant</li> <li>• 1 connection for power supply</li> </ul>	<b>Included:</b> <ul style="list-style-type: none"> <li>• 2 regular participants</li> <li>• 1 connection for power supply</li> </ul>	<b>Included:</b> <ul style="list-style-type: none"> <li>• 1 regular participant</li> <li>• 1 bar table</li> <li>• 2 bar stools</li> <li>• 1 connection for power supply</li> </ul>	<b>Included:</b> <ul style="list-style-type: none"> <li>• 2 regular participants</li> <li>• 1 bar table</li> <li>• 2 bar stools</li> <li>• 1 connection for power supply</li> </ul>
<b>750.- Euro</b>	<b>1,000.- Euro</b>	<b>1,000.- Euro</b>	<b>1,500.- Euro</b>

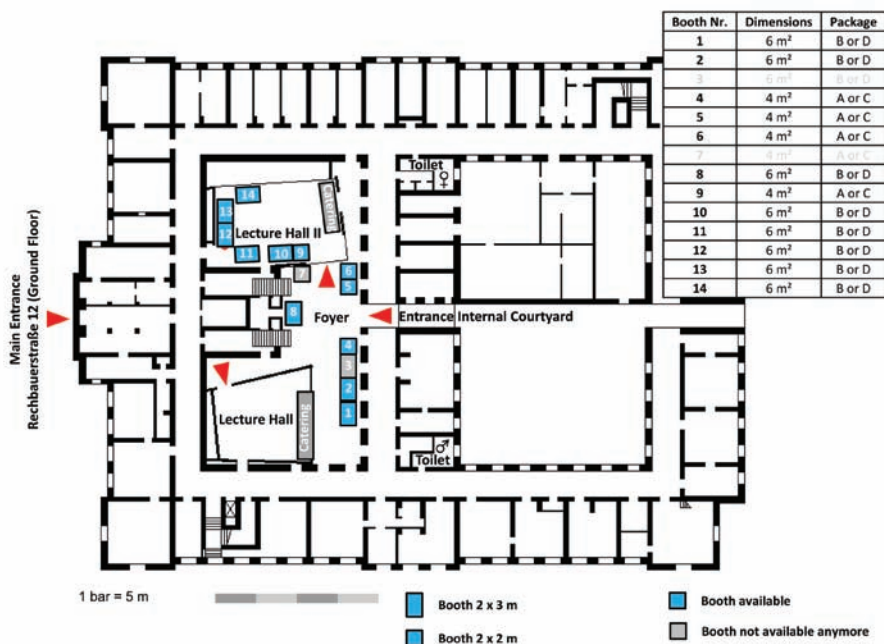
Booths will be allocated on a first come first serve basis. For booths available please refer to the packages and floor plan.

More details you can retrieve from the Exhibitor-Service-Kit on the website [www.ufrim.tugraz.at](http://www.ufrim.tugraz.at)



## TECHNICAL EXHIBITION

The exhibition will be installed in the foyer and lecture hall II adjacent to the session hall I of the venue, together with the coffee breaks.



Please check the current availability of the boots at the website: [www.ufrim.tugraz.at](http://www.ufrim.tugraz.at).

As organizing committee we are also gladly at your disposal for questions and wishes. You can reach us under the telephone number +43 316 873-8361, or via e-mail [ufrim@tugraz.at](mailto:ufrim@tugraz.at).

We would be happy if we could convince you to become an exhibitor at our symposium.



## SYMPOSIUM ORGANISATION - COMMITTEES

### International Advisory Committee

 Bateman A. (Spain)	 Loipersberger A. (Germany)
 Berga L. (Spain)	 Meghella M. (Italy)
 Boes M. (Switzerland)	 Nachtnebel H.-P. (Austria)
 De Hemptinne F. (Belgium)	 Natale L. (Italy)
 Escuder I. (Spain)	 Patek M. (Austria)
 Falconer R. (United Kingdom)	 Pohl R. (Germany)
 Frei R. (Austria)	 Riha J. (Czech Republic)
 Grossmann G. (Austria)	 Schüttrumpf H. (Germany)
 Hornich R. (Austria)	 Stiefelmayer H. (Austria)
 Koboltschnig G. (Austria)	 Sumi T. (Japan)
 Koutsoyiannis D. (Greece)	 Ten Veldhuis M.-C. (Netherlands)

### Local Organizing Committee

#### GRAZ UNIVERSITY OF TECHNOLOGY

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E-mail: [ufrim@tugraz.at](mailto:ufrim@tugraz.at)

Web: <http://www.ufrim.tugraz.at>

#### Head:

Prof. Gerald Zenz

#### Core organizing team:

Breinhälter H., Jöbstl C., Knoblauch H.,  
Ortner S., Vitas C.

#### In cooperation with

Government of Styria, Department 19B -  
Water Protective Economy and Groundwater  
Resources



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Graz University of Technology has developed an impressive and comprehensive know-how in technical sciences and engineering. Whether materials research, human and biotechnology, information and communications technologies, mobility research or research in the field of sustainability, five Fields of Expertise form the unmistakable scientific fingerprint of the university. Co-operation remains the key factor of success, and networks with science and industry have become an engine of advancement. **Over 200 years.**

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► [www.200years.tugraz.at](http://www.200years.tugraz.at)



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21<sup>st</sup> - 23<sup>rd</sup> September 2011 - Graz, Austria

# **UFRIM**

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Approaches to enhance resilience of communities

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