

**Прафесионални членства на доц. д-р Емил Бурназки,  
Редколегии в списания, Оргкомитети, организатор на конференции,  
рецензент:**

Индивидуален член на IAHR  
(International Association for Hydro-Environmental Engineering and Research)



If undelivered please return to:

**IAHR Secretariat:**  
Paseo Bajo Virgen del Puerto 3  
28005 Madrid  
SPAIN  
  
e-mail: [iahr@iahr.org](mailto:iahr@iahr.org)  
web: [www.iahr.org](http://www.iahr.org)

19105  
Base Member  
**Dr. Emil Bournaski**  
National Institute of Meteorology and Hydrology  
(NIMH)  
66, Tsarigradsko Shose  
01784 Sofia  
Bulgaria

*See you at the 35th IAHR World Congress in Chengdu September 8-13th, 2013! [www.iahr2013.org](http://www.iahr2013.org)*



International Association for Hydro-Environment Engineering and Research  
Assoc. Int. d'Ingenierie et de Recherches Hydrauliques et Environnementales

Supported by

**CEDEX**

**Dr. Emil Bournaski**

National Institute of Meteorology and Hydrology (NIMH)  
66, Tsarigradsko Shose  
Sofia  
1784  
Bulgaria

Date: July 05, 2013

Membership no.: 19105

Invoice no.: 20535

Dear Dr. Emil Bournaski,

This is to confirm receipt of your payment for the following invoice for the amount of Euro 39.00, corresponding to:

Membership no.	Description	Amount (Euros)
19105	Base Membership Fee 2013	39.00
	<b>TOTAL</b>	<b>39.00</b>

Remaining balance: 0.00

Payment by: 0

Best Regards,

IAHR Secretariat  
Paseo Bajo Virgen del Puerto 3  
28005 Madrid, SPAIN  
Carmen Sánchez  
Accounts



СЪЮЗ НА УЧЕННИТЕ В БЪЛГАРИЯ

ЧЛЕНСКА КАРТА № 6195

ст.н.с. ЕМИЛ ГЕОРГИЕВ БУРНАЗКИ

е редовен член  
на Съюза на учените в България  
София, 30. 01. 1997 г.

Председател: Иван Матев

Гл. секретар: K. Георгиев

UNION OF SCIENTISTS IN BULGARIA

MEMBERSHIP CARD No. 6195

Mr./Mrs. EMIL BURNAZKI

is a fellow of the  
Union of Scientists in Bulgaria  
Sofia, 30. 01. 1997

President: Иван Матев

Secretary-General: K. Георгиев

ОТЧЕТЕН ЗА:

19\_\_г. кв.№ 223

Касиер:

19\_\_г. кв.№ 992

Касиер:

19\_\_г. кв.№ 223

Касиер:

Колективен член чрез СЕБЕ на



Balkan Environmental Association B.E.N.A.

Член на Сдружение на експертите в България по екотехнологии (СЕБЕ) и няколко мандата председател на Контролен съвет.

Член на Съюз на учените в България (за кратко)

**Член на редколегия на 2 международни списания:**

*Journal of Balkan Ecology*, Sofia & *Mining Journal*, Tbilisi, Georgia,

JOURNAL OF  
**BALKAN ECOLOGY**

Volume 13, No 4, 2010

*Editorial Board*

**Editor-in-Chief:**

Christov, I. D. (Bulgaria)

**Deputy Editors-in-Chief:**

Alexandrov, A. (Bulgaria)

**Managing Editor:**

Dimitrova, Y. (Bulgaria)

**Members:**

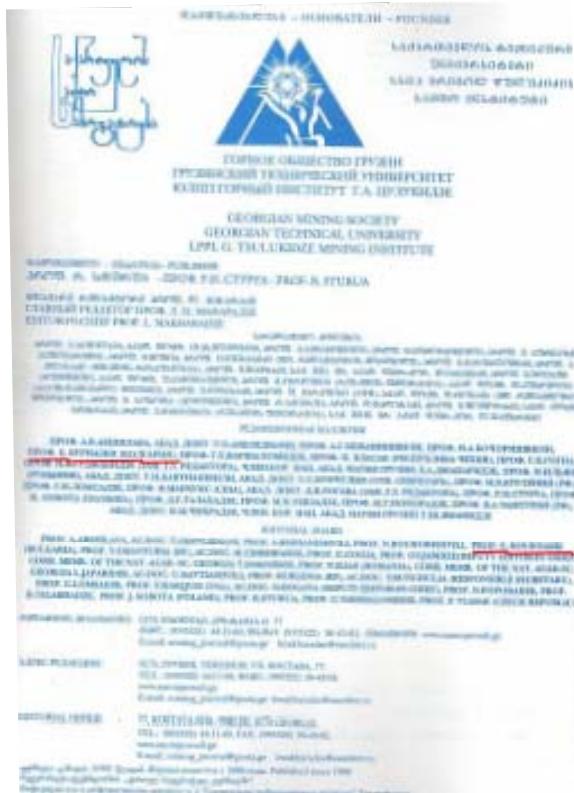
- |   |                                     |
|---|-------------------------------------|
| Adams, F. (Belgium)                       | Papadopoulos, A. (Greece)           |
| Almriotis, D. (Greece)                    | Petkov, G. (Bulgaria)               |
| Atanasov, A. (Bulgaria)                   | Petkov, I. (Bulgaria)               |
| Bozhilov, P. (Bulgaria)                   | Petkov, R. (Bulgaria)               |
| Burnaski, E. (Bulgaria)                   | Rössnev, B. (Bulgaria)              |
| Damyanov, D. (Bulgaria)                   | Rousseva, S. (Bulgaria)             |
| Damyanova, A. (Bulgaria)                  | Sarbu, C. (Romania)                 |
| Efe, R. (Turkey)                          | Sgurev, V. (Bulgaria)               |
| Filcheva, E. (Bulgaria)                   | Simeonov, V. (Bulgaria)             |
| Geehev, I. (Bulgaria)                     | Steinnes, E. (Norway)               |
| Gochev, A. (USA)                          | Stoicheva, D. (Bulgaria)            |
| Ivanov, I. (Bulgaria)                     | Tulajkovic-Teslich, M. (Serbia)     |
| Kastanek, F. (Austria)                    | Tudarakov, D. (Bulgaria)            |
| Kirov, K. (Bulgaria)                      | Teoharov, M. (Bulgaria)             |
| Kolev, N. (Bulgaria)                      | Topalova, Y. (Bulgaria)             |
| Koteva, V. (Bulgaria)                     | Tsvetkov, Ts. (Bulgaria)            |
| Kovaci, V. (Albania)                      | Valev, V. (Bulgaria)                |
| Kapusovic, I. (Bosnia<br>and Herzegovina) | Vasilevski, G. (Macedonia)          |
| Laze, P. (Albania)                        | Veleinis, D. (Greece)               |
| Loiskandl, W. (Austria)                   | Wiman, B. (Sweden)                  |
| Maior, C. (Romania)                       | Zagorov, O. (Bulgaria)              |
| Martanova, S. (Bulgaria)                  | Zheleva-Bogdanova, E.<br>(Bulgaria) |
| Markovska, V. (Bulgaria)                  |                                     |
| Naidenov, Y. (Bulgaria)                   | <b>Associate Members:</b>           |
| Nankinov, D. (Bulgaria)                   | Belberov, M. (Bulgaria)             |
| Nielsen, D. (USA)                         | Dachev, D. (Bulgaria)               |
| Orluvich, S. (Serbia)                     | Delkov, A. (Bulgaria)               |
|   | Kercheva, M. (Bulgaria)             |

The language of the Journal of Balkan Ecology is English.  
Manuscripts should be sent to the following address.

Corresponding and subscription address:

© PublishSciSet-Eco Publisher  
Dipl. Eng. Yiliya Dimitrova  
P. O. Box 605  
1000 Sofia, Bulgaria  
Printed in Bulgaria

Phone: (+3592) 987 10 79  
0361, (+35999) 933 062  
E-mail: pse@abv.bg  
Website: <http://ecobalk.hit.bg>



Член и секретар на Редколегия на поредица Водни проблеми  
(период при съществуването)

Water Problems

Volume 28, Sofia, 1996  
*Bulgarian Academy of Sciences*

Редакционни консулти

Борислав Георгиев, Борислав Пасков, Галия Бърдарска, Емил Бориски (секретар), Жанка Димитрова, Надя Николова (отговорен редактор), Тодор Григоров

Editorial Board

Borislav Georgiev, Borislav Paslov, Galia Bardarska, Emil Boriski (Secretary)  
Zhanka Dimitrova, Nadezha Nikolova (Editor-in-Chief), Todor Grigorov

Адрес на редакцията: Институт по водни проблеми, 1113 София, ул. „Анга Г. Бончев“, бд. 1, телефон: 02/72 23 77

Address of the Editorial Office: Institute of Water Problems Acad. G. Bonchev Street, bl. 1, 1113 Sofia, Bulgaria, Tel/Fax (+359) 2 72 23 77

© ИАН, Институт по водни проблеми  
1996

628633 (03)

АКАДЕМИЧЕСКО ПИДАЧЕСТВО „ПРОФ. МАРИН ДРИНОВ“

Редактор Г. Манолова Керектор Е. Крачкова Технически редактор Е. Аудромова  
Нис. кварт. 9 Факсимил 7616816 Печ. квант 4.38  
Печатница на Академичните издания — 1113 София „Анга Г. Бончев“ бд. 1

Член / Member of Scientific Committee of **International Conference on Transport and Sedimentation of Solid Particles - T&S Conference** in Rostock, Germany , 2013, Wrocław, Poland, 2011, Saint Petersburg, Russia, 2008, Tbilisi, Georgia, 2006.  
<http://www.auf-sw.uni-rostock.de/16th-international-conference-on-transport-sedimentation/scientific-commitee/>

## ORGANISING COMMITTEE

**Sobota Jerzy**, chairman, Wroclaw University of Environmental and Life Science, Wroclaw, Poland

**Anne Tolman**, co-chairman, Delft University of Technology, Delft, The Netherlands

**Makarewska Beata**, co-chairman, Wroclaw University of Environmental and Life Science, Wroclaw, Poland

## ADDRESS

Conference Secretariat  
Delft University of Technology,  
Faculty of Mechanical, Maritime and Materials  
Engineering  
Mekelweg 2, 2628 CD Delft, The Netherlands  
tel +31 15 2788682  
ts17@tudelft.nl  
[www.aqua.ar.wroc.pl/ts17](http://www.aqua.ar.wroc.pl/ts17)

## CALL FOR PAPERS

Conference papers (original, unpublished, nor pending publications elsewhere) will be selected on the basis of extended abstracts. Authors are requested to submit by e-mail a one-page abstract by

**February 28, 2015.**

Please include the title of presentation, authors, institutional affiliation, complete mailing address including e-mail. Authors will have been notified of acceptance by

**March 31, 2015.**

Detailed information of the prepared manuscript (number of pages, typing instructions and style) will be sent along with the notification of the abstract acceptance. All manuscripts must be prepared and presented in English. Only manuscripts received no later than

**July 15, 2015**

will be included (after final referring by two reviewers) in the Conference Proceedings.  
The organizers provide the opportunity for individuals to present their research on posters.  
Call for paper form can be found at

[www.aqua.ar.wroc.pl/ts17](http://www.aqua.ar.wroc.pl/ts17)

## SCIENTIFIC COMMITTEE

### Chairman of the 17 Conference

Rhee, Cees van, Delft University of Technology,  
Delft, The Netherlands

#### Permanent members

Bartosik Artur, Poland  
Duffy G. Geoffrey, New Zealand  
Eckstädt Hartmut, Germany  
Gochishvili Teimuraz, Georgia  
Hallenwang Rainer, South Africa  
Palanski Jan, Poland  
Parzynka Włodzimierz, Poland  
Slater T. Paul, Australia  
Sobota Jerzy, Poland  
Verhoeven Ronny, Belgium  
Vlasak Pavel, Czech Republic  
Wilson C. Kenneth, Canada

#### Corresponding members

Alexandrov I. Victor, Russia  
Arzika Souleymane, Niger  
Borcan Slna, Ukraine  
Bounanski Emil, Bulgaria  
Chara Zdenek, Czech Republic  
Cooke Robert, USA  
Gavardashvili Givi, Georgia  
Goosen Peter, South Africa  
Heywood Nigel, United Kingdom  
Kabram Haim, Israel  
Koushal Deo Raj, India  
Lannante Frédéricque, France  
Mahmoudi Mirali, Iran  
Matejsek Václav, Czech Republic  
Meyer Zygmunt, Poland  
Pulham Lionel, Australia  
Radecki-Pawlak Artur, Poland  
Sanders Sean, Canada  
Sellgren Anders, Sweden  
Tolman Anne, The Netherlands  
Thomas D. Allan, Australia  
Yeon Chi Ho, Korea  
Xia Jianxin, China  
Zou Weisheng, China



## 17<sup>th</sup> International Conference on Transport & Sedimentation of Solid Particles



**September 22-25, 2015**  
**Delft**  
**The Netherlands**

## FIRST ANNOUNCEMENT & CALL FOR PAPER

[www.aqua.ar.wroc.pl/ts17](http://www.aqua.ar.wroc.pl/ts17)

## ORGANISING COMMITTEE

**Sobota Jerzy**, *chairman*, University of Environmental and Life Science, Wroclaw, Poland  
**Ballschmitem Bernd**, *co-chairman*, University of Rostock, Rostock, Germany

**Malczewska Beata**, *co-chairman*, University of Environmental and Life Science, Wroclaw, Poland  
**Engelke Paul**, University of Rostock, Rostock, Germany

## ADDRESS

Conference Secretariat  
University of Rostock  
The Faculty of Agricultural and Environmental Sciences  
Satower Str. 48, 18059 Rostock, Germany  
Dipl.-Ing. Paul Engelke  
Tel.: +49 (0) 381 498 3467  
Fax: +49 (0) 381 498 3462  
**e-mail:** [ts16@up.wroc.pl](mailto:ts16@up.wroc.pl)  
[www.aqua.ar.wroc.pl/ts16](http://www.aqua.ar.wroc.pl/ts16)

## CALL FOR PAPERS

Conference papers (original, unpublished, nor pending publications elsewhere) will be selected on the basis of extended abstracts. Authors are requested to submit a one-page abstract. Please include the title of presentation, authors, institutional affiliation, complete mailing address including E-mail. Authors will have been notified of acceptance by

**31 March 2013.**

Detailed information of the prepared manuscript (number of pages, typing instructions and style) will be sent along with the notification of the abstract acceptance. All manuscripts must be prepared and presented in English. Only manuscripts received no later than

**31 May 2013**

will be included (after final referring by two reviewers) in the Conference Proceedings.

The organizers provide the opportunity for individuals to present their research on posters.

## SCIENTIFIC COMMITTEE

**Chairman of the 16 Conference**  
**Eckstädt Hartmut**, University of Rostock, Germany

### Permanent members

Duffy G. Goeffrey, New Zealand  
Gochitashvili Teimuraz, Georgia  
Haldenwang Rainer, South Africa  
Palarski Jan, Poland  
Parzonka Włodzimierz, Poland  
Slatter T. Paul, Australia  
Sobota Jerzy, Poland  
Van Ree Cees, The Netherlands  
Verhoeven Ronny, Belgium  
Vlasák Pavel, Czech Republic  
Wilson C. Kenneth, Canada

### Corresponding members

Alexandrov I. Victor, Russia  
Arzika Souleymane, Niger  
Bartnik Wojciech, Poland  
Bartosik Artur, Poland  
**Bournaski Emil**, Bulgaria  
Chára Zdenek, Czech Republic  
Cooke Robert, USA  
Heywood Nigel, United Kingdom  
Koushal Deo Raj, India  
Larrartte Frédérique, France  
Mahammadi Mirali, Iran  
Matoušek Václaw, Czech Republic  
Meyer Zygmunt, Poland  
Pullum Lionel, Australia  
Sanders Sean, Canada  
Sellgren Anders, Sweden  
Tait J. Simon, United Kingdom  
Thomas D. Allan, Australia  
Xia Jianxin, China  
Zou Weisheng, China



# 16<sup>th</sup> International Conference on Transport & Sedimentation of Solid Particles



**September 18-20, 2013**  
**Rostock**  
**Germany**

**FIRST ANNOUNCEMENT  
& CALL FOR PAPER**

[www.aqua.ar.wroc.pl/ts16](http://www.aqua.ar.wroc.pl/ts16)

## ORGANISING COMMITTEE

- Sobota J.** *Chairman,*  
Wrocław University of Environmental  
and Life Science, Wrocław, Poland
- Malczewska B.** Wrocław University of Environmental  
and Life Science, Wrocław, Poland
- Musik A.** Wrocław University of Environmental  
and Life Science, Wrocław, Poland

## ADDRESS

Conference Secretariat: the Faculty of Environmental  
Engineering and Geodesy, Wrocław University of  
Environmental and Life Sciences, Plac Grunwaldzki 24a,  
50-365 Wrocław, Poland

E-mail: [ts15@up.wroc.pl](mailto:ts15@up.wroc.pl);  
[www.iis.ar.wroc.pl/ts15](http://www.iis.ar.wroc.pl/ts15)  
Phone: +48 71 320 5579, 5519, 1558  
Fax: +48 71 320 5579, 1557

## CALL FOR PAPERS

Conference papers (original, unpublished, nor  
pending publications elsewhere) will be selected on  
the basis of extended abstracts. Authors are requested  
to submit a one-page abstract. Please include the title  
of presentation, authors, institutional affiliation,  
complete mailing address including e-mail. Authors  
will have been notified of acceptance by

February 28, 2011

Detailed information of the prepared manuscript  
(number of pages, typing instructions and style) will  
be sent along with the notification of the abstract  
acceptance. All manuscripts must be prepared and  
presented in English. Only manuscripts received no  
later than

July 15, 2011

will be included (after final referring) in the  
Conference Proceedings.

Please feel free to photocopy and distribute this  
Announcement and Call for Paper to anyone interested.

## SCIENTIFIC COMMITTEE

- Parzonka W.** *Chairman of the 15<sup>th</sup> Conference*  
Wrocław University of Environmental  
and Life Sciences, Wrocław, Poland

### Permanent members:

- Duffy G.G.** University of Auckland, New Zealand  
**Gochitashvili T.** Mining Institute Georgian AS,  
Tbilisi, Georgia  
**Palarski J.** Technical University of Silesia, Gliwice,  
Poland  
**Richardson J.R.** University of Swansea, UK  
**Slatter P.T.** RMIT University, Melbourne, Australia  
**Sobota J.** Wrocław University of Environmental  
and Life Sciences, Wrocław, Poland  
**Verhoeven R.** Ghent University, Belgium  
**Vlasak P.** Institute of Hydrodynamics, Prague,  
Czech Republic  
**Wilson K.C.** Queen's University, Kingston, Canada

### Corresponding members:

- Alexandrov V.** Mining Institute, Saint-Petersburg, Russia  
**Arzika S.** University of Niamey, Niger  
**Bartnik W.** Agricultural University, Krakow, Poland  
**Bartosik A.** Kielce University of Technology, Poland  
**Bournaski E.** Institute of Water Problems, Sofia,  
Bulgaria  
**Chara Z.** Institute of Hydrodynamics, Prague  
Czech Republic  
**Chhabra R.** Indian Institute of Technology, Kanpur,  
India  
**Cooke R.** Peterson & Cooke, Cape Town, South  
Africa  
**Heywood N.** BHR Group, Granfield, UK  
**Kalman H.** B-G University of Negev, Beer Sheva,  
Israel  
**Larrattte F.** French Public Work Research Laboratory  
Paris, France  
**Matousek V.** Technical University, Prague, Czech  
Republic  
**Pullum L.** Private Consultant, Melbourne, Australia  
**Sellgren A.** Lulea University of Technology, Sweden  
**Thomas D.A.** Slurry System Ltd, Newcastle, Australia  
**Zou Weisheng** Hunan University, Changsha, China



# 15<sup>th</sup> International Conference on Transport & Sedimentation of Solid Particles



6 – 9.09.2011

Wrocław  
Poland

## FIRST ANNOUNCEMENT & CALL FOR PAPER

<http://www.iis.ar.wroc.pl/ts15>

## GENERAL INFORMATION

### RUSSIA – Saint Petersburg

Saint Petersburg was conceived and created by Peter the Great not only as the new capital for his growing empire, but first and foremost as a port city opening an outlet for Russia onto the Baltic Sea and to the countries of Europe and introducing Russia to the rest of the world. Over the course of many years Petersburg has developed as a center of vital ties between East and West, Europe and Asia, both a birthplace and a second home for the traditions of world culture. By rights St. Petersburg is considered to be one of the main centers of Russia's political, academic and cultural life. With the arrival of the twenty-first century, a new page in St. Petersburg's history is being opened - the year 2003 will mark the 300th anniversary of the founding of the city. This new century in the city's chronicles will be dedicated to reinforcing the city's status as a world center of culture, arts and tourism.

Saint Petersburg State Mining Institute was the first technical university in Russia, which was founded in 1773 in accordance with Ekaterina II Decree. It was realization of Peter I and Lomonosov ideas about engendering staff training.

## ORGANISING COMMITTEE

**Sobota J.** *Chairman*, University of Environment and Life Science, Wroclaw, Poland

**Ivanov S.L.** *Co-Chairman*. Saint Petersburg State Mining Institute, Saint Petersburg, Russia

**Boczarska M.** University of Environment and Life Science, Wroclaw, Poland

**Kojaruk A.E.** Saint Petersburg State Mining Institute, Saint Petersburg, Russia

**Borzenkov V.T.** Saint Petersburg State Mining Institute, Saint Petersburg, Russia

**Malczewska B.** University of Environment and Life Science, Wroclaw, Poland

You can find this Announcement and the Call for Papers and the Pre-Registration Form on the Internet address:

<http://ts14.spmi.ru>

## SCIENTIFIC COMMITTEE

**Litvinienko V.S.** *Chairman of the 14<sup>th</sup> Conference*  
Rector of Saint Petersburg State  
Mining Institute, Saint Petersburg, Russia

#### Permanent members:

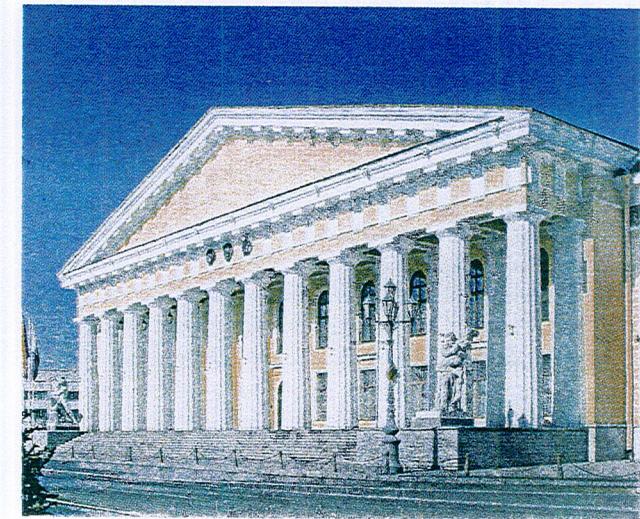
- Duffy G.G.** University of Auckland, New Zealand  
**Gochitashvili T.** Mining Institute, GAS, Tbilisi, Georgia  
**Palarski J.** Technical University of Silesia, Gliwice, Poland  
**Parzonka W.** University of Environment and Life Sciences, Wroclaw, Poland  
**Richardson J.R.** University of Swansea, UK  
**Slatter P.T.** Cape Peninsula University of Technology, Cape Town, South Africa  
**Sobota J.** University of Environment and Life Sciences Wroclaw, Poland  
**Verhoeven R.** Ghent University, Belgium  
**Vlasak P.** Institute of Hydrodynamics, ASCR, Prague, Czech Republic  
**Wilson K.C.** Queen's University, Kingston, Canada

#### Corresponding members:

- Alexandrov V.** Saint Petersburg State Mining Institute, Saint Petersburg, Russia  
**Arzika S.** University of Niamey, Niger  
**Bartnik W.** Agricultural University, Krakow, Poland  
**Bartosik A.** Kielce University of Technology, Poland  
**Bournaski E.** Institute of Water Problems, BAS, Sofia, Bulgaria  
**Chara Z.** Institute of Hydrodynamics, ASCR, Prague Czech Republic  
**Chhabra R.** Indian Institute of Technology, Kanpur, India  
**Goosen P.** Peterson & Cooke, Cape Town, South Africa  
**Heywood N.** BHR Group, Granfield, UK  
**Kalman H.** B-G University of Negev, Beer Sheva, Israel  
**Larrartte F.** French Public Work Research Laboratory Paris, France  
**Matousek V.** Czech Technical University, Prague, Czech Republic  
**Pullum L.** Private Consultant, Melbourne, Australia  
**Sellgren A.** Lulea University of Technology, Sweden  
**Thomas D.A.** Slurry Systems Pty Ltd, Newcastle, Australia  
**Zou Weisheng** Hunan University, Changsha, China



# 14<sup>th</sup> International Conference on Transport & Sedimentation of Solid Particles

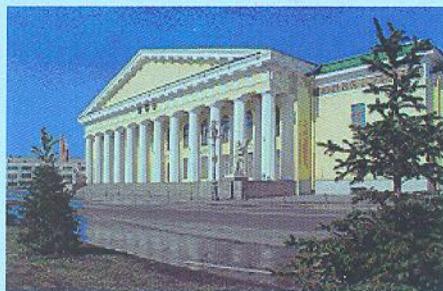


June 23- 27, 2008  
Saint Petersburg  
Russia

First Announcement  
& CALL FOR PAPER

<http://ts14.spmi.ru>

Saint Petersburg State Mining Institute named after G.V.Plekhanov  
(Technical University)



***14<sup>th</sup> INTERNATIONAL CONFERENCE  
ON TRANSPORT AND SEDIMENTATION  
OF SOLID PARTICLES***

***23-27 June, 2008***

***PROGRAMME***



**SAINT PETERSBURG  
2008**

# **INTERNATIONAL SCIENTIFIC COMMITTEE**

## **Chairman of the Conference**

**Litvinenko Vladimir** – Saint Petersburg State Mining Institute, Saint Petersburg, RUSSIA

## **Permanent members**

**Sobota Jerzy**

- Wroclaw University of Environment and Life Sciences, Wroclaw, POLAND
- University of Auckland, NEW ZEALAND
- Mining Institute, GAS, Tbilisi, GEORGIA
- Technical University of Silesia, POLAND
- Wroclaw University of Environment and Life Sciences, Wroclaw, POLAND
- University of Swansea, Swansea, U.K.
- Cape Peninsula University of Technology, Cape Town, SOUTH AFRICA
- Ghent University, Ghent, BELGIUM
- Institute of Hydrodynamics, ASCR, v.v.i., Prague, CZECH REPUBLIC
- Queen's University, Kingston, CANADA

**Richardson F. Jack**  
**Slatter T. Paul**

**Verhoeven Ronny**  
**Vlasak Pavel**

**Wilson C. Kenneth**

## **Corresponding members**

**Alexandrov Victor**

- Saint Petersburg State Mining Institute, Saint Petersburg, RUSSIA
- University of Niamey, Niamey, NIGER
- Kielce University of Technology, Kielce, POLAND
- Agricultural University, Cracow, POLAND
- Institute of Water Problems, BAS, Sofia, BULGARIA
- Institute of Hydrodynamics, ASCR, v.v.i., Prague, CZECH REPUBLIC
- Indian Institute of Technology, Kanpur, INDIA
- Peterson&Cooke, Cape Town, SOUTH AFRICA

**Arzika Souleymane**  
**Bartosik Artur**

**Bartnik Wojciech**  
**Bournaski Emil**

**Chara Zdenek**

**Chhabra P. Raj**

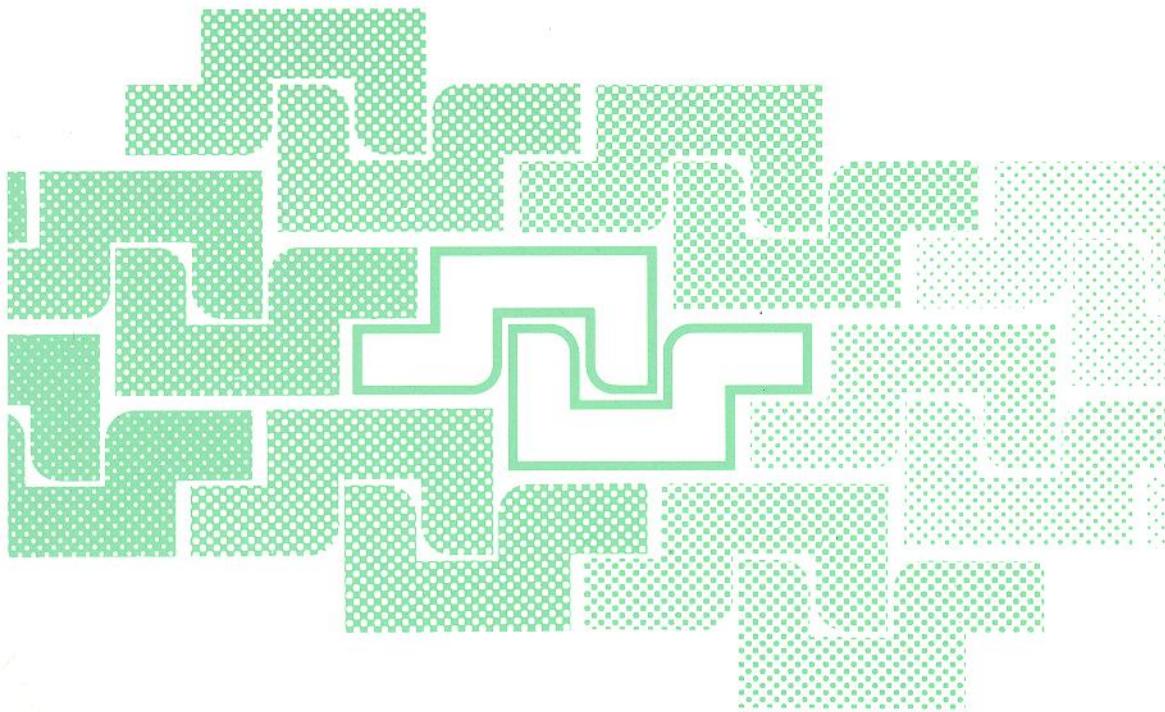
**Goosen Peter**

**12.00 – 14.00 – 9<sup>th</sup> technical session.**  
**Chairman: Emil Bournaski (Bulgaria)**

- 12.00 – 12.20** - Robert Glowiski, Włodzimierz Parzonkai: Erosion regime of semi-cohesive island mud from meander in frontier upper.
- 12.20 – 12.40** - Frédérique Larrarte, Pierre François: On the influence of suspended solids on ultrasonic beams – application to wastewaters.
- 12.40 – 13.00** - Marco Vicari, Paolo di Pietro: An innovative ballasted geocomposite filter for the stabilization of the seabed in the Venice lagoon.
- 13.00 – 13.20** - Harmut Eckstädt, Jan Kempinski: Transient flow on non-Newtonian fluids.
- 13.20 – 13.40** - Frédérique Larrarte, Louis-Marie Cottineau : Experimental investigation of solids and velocities within sewers.
- 14.00 – 15.00** - Launch

**15.00 – 16.40 – 10<sup>th</sup> technical session.**  
**Chairman: Victor Alexandrov (Russia)**

- 15.00 – 15.20** - Marek Dziubiński, Paweł Budzyński: Generalization of equations for two-phase transportation of gas and non-Newtonian liquid mixtures in pipe.
- 15.20 – 15.40** - Fedor Zverev, Mikhail Lurie: Modified material balance method for oil pipelines leak detection.
- 15.40 – 16.00** - Evgeny Krapivsky, Vladimir Lomtadze, Alexander Belikov: The analysis of trunk gas pipelines breakdowns as base for forecasting their technical condition.
- 16.00 – 16.20** - Alexey Neklyayev: Emergency gas outlet from gas pipeline.
- 16.20 – 16.40** - Maria Kuskova: Peristaltic conduits for uniform and non-uniform media pumping.
- 16.40 – 17.00** - Break



# Advances in Urban Stormwater and Agricultural Runoff Source Controls

Edited by

Jiri Marsalek, Ed Watt, Evzen Zeman  
and Heiko Sieker

NATO Science Series

Proceedings of the NATO Advanced Research Workshop on  
Source Control Measures for Stormwater Runoff  
St. Marienthal-Ostritz, Germany  
8–12 November 2000

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN 1-4020-0153-3 (HB)

ISBN 1-4020-0154-1 (PB)

---

Published by Kluwer Academic Publishers,  
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

Sold and distributed in North, Central and South America  
by Kluwer Academic Publishers,  
101 Philip Drive, Norwell, MA 02061, U.S.A.

In all other countries, sold and distributed  
by Kluwer Academic Publishers,  
P.O. Box 322, 3300 AH Dordrecht, The Netherlands.

*Printed on acid-free paper*

---

All Rights Reserved

© 2001 Kluwer Academic Publishers

No part of the material protected by this copyright notice may be reproduced or utilized in  
any form or by any means, electronic or mechanical, including photocopying, recording or  
by any information storage and retrieval system, without written permission from the  
copyright owner.

Printed in the Netherlands.

**Directors**  
Marsalek, J

National Water Research Institute  
867 Lakeshore Road, Burlington, Ontario, L7R 4A6  
CANADA

Zeman, E.

DHI Hydroinform a.s.  
Na Vrsich 5, 100 00 Praha 10  
CZECH REPUBLIC

**Key Speakers**

Bournaski, E.

Bulgarian Academy of Sciences, IWP  
Acad. G. Bontchev Street, Block 1, BG -1113 Sofia  
BULGARIA

Watt, W.E.

Dept. of Civil Engineering  
Queen's University, Kingston, ON K7L 3N6  
CANADA

Kuby, R.

DHI Hydroinform a.s.  
Na Vrsich 5, 100 00 Praha 10  
CZECH REPUBLIC

Metelka, T.

Hydroprojekt a.s.  
Taborska 31, 140 00 Praha 4  
CZECH REPUBLIC

Pryl, K.

DHI Hydroinform a.s.  
Na Vrsich 5, 100 00 Praha 10  
CZECH REPUBLIC

Mikkelsen, P.S.

Dept. of Env. Science and Engineering  
Tech. University of Denmark, Bldg 115, DK-2800 Kongens  
Lyngby  
DENMARK

Raimbault, G.

LCPC  
BP 4129, 44341 Bouguenais Cedex  
FRANCE

Sieker, F.

University of Hannover  
Heinrich Beensen-Str. 1, D-30926 Seelze  
GERMANY

Член на Научен комитет на Международна конференция “Екология –  
интердисциплинарна наука и практика”, София, 2012 г.

Оргсекретар на Симпозиум “Места- трансгранична река: проблеми и предложения за  
решаването им”, София, 22-23 март 2005 г.

**Международна конференция**  
**ЕКОЛОГИЯТА – ИНТЕРДИСЦИПЛИНАРНА НАУКА И ПРАКТИКА**  
под патронажа на Министерството на околната среда и водите (МОСВ)  
ФНТС, ул. „Г. С. Раковски“ 108, 1000 София  
25-26 октомври 2012 г.

*Организатори:*  
Федерация на научно-техническите съюзи (ФНТС)  
Научно-технически съюз по лесотехника (НТСЛТ)  
Научно-технически съюз по водно дело (НТСВД)  
Научно-технически съюз на специалистите от земеделието (НТСЗ)  
Лесотехнически университет (ЛТУ)  
Балканска екологична федерация (БЕФ)  
Международна редакция на *Journal of Balkan Ecology* (JBE)  
Българска академия на науките (БАН)  
Институт за гората (ИГ)  
Институт по метеорология и хидрология (ИМХ)  
Институт за ядрени изследвания и ядрена енергетика (ИЯИЕ)  
Институт по биоразнообразие и биосистемни изследвания (ИББСИ)  
Софийски университет «Св. Климент Охридски» (СУ)  
Биологически факултет (БФ)  
Селскостопанска академия (ССА)  
Институт по почвовъздух «Н. Пушкиров» (ИП)  
Институт по земеделие – Карлобаг (ИЗК)  
Университет по национално и световно стопанство (УНСС)  
Съюз на учениците в България (СУБ)  
Български агенция по безопасност на храните (БАБХ)  
Централна лаборатория по ветеринарно-санитарни експертизи и екология (ЦЛВССЕ)  
Тракийски университет – Стара Загора  
Аграрен факултет (АФСЗ)  
Овегто Ник. АД  
СВЕКО ЕНЕРГОПРОЕКТ (СЕП)

#### Първо съобщение

Инициативният комитет на Редколегията на международното научно-приложно списание *Балкански екологи* (*Journal of Balkan Ecology*) организират и провеждат международна конференция, която да формулира актуални глобални, национални и регионални екологични проблеми; да определи възможности за комплексно решаване на тези проблеми; да покаже постигнати конкретни научни и приложни постижения у нас, Европейски съюз и други страни в света. Конференцията ще обедини усилията на учени в специалности от академични, социални и административни институции, индустрията, енергетиката и транспорта, аграрния сектор и медицината, с оглед по-нататъшно успешно решаване на екологичните проблеми, стоящи пред човечеството, и подпомагане на разработването на подходящи управленчески и технологични политики в научната, стопанската и социалната област. Конференцията ще постави за цел да оценят действителното състояние на различни биосистеми (природни, урбанизирани, агрокосистеми), да предложи ефективни приложени технологии, спестявящи енергия, природни ресурси, материали и човешки труд, подходящи за съхраняване и отстраниване на вредното антропогенно въздействие върху околната среда, здравето и живота на хората. Тя е посветена на 15-годишнината на *Journal of Balkan Ecology*.

**Научни сърцеви:** Глобална екология • Агрономия • Урбекология • Хидрология • Екология на естествената среда и природата • Технология и информационна екология • Екология на човека • Опазване на околната среда • Биологическо образование и изпитание • Екологическа философия, психология, етика и социология • Екологично инженерство

**Работни езици на конференцията:** английски и български

**Важни срокове:**

- (a) изпращане на заявка и обектът за локации и постери – 30 април 2012 г.
- (b) изпращане на пълен доклад на английски и български език – 30 юли 2012 г.

Такса за участие: 80 лв. (за магистри, докторанти и пенсионери – 40 лв.) до 31 юни 2012 г. След тази дата – 20% увеличение (съответно 100 лв. и 50 лв.) – до 31 август 2012 г. Таката включва: сборник и материали на конференцията, кафе-паузи и концерт.

Докладите трябва да бъдат изпратени на картен и магнитен носител. След решението приемът доклади ще бъдат изпращани в съборния на конференцията.

**Извинение за пълнение:**

\* банков премиум:  
ПълнишСайСет-Еко ЕООД  
ОББ - кварт Раковски, София  
IBAN: BG70UBBSB0021015533320  
BIC: UBBSBGSP

\* на място, при регистрация

**Организационен комитет**

**Председател**  
проф. д-р Илия Христов (ИВЕ)

**Зам. председател**  
проф. д-р Веселин Брезан (ЛТУ, НТСЛТ)

**Секретари**  
дип. инж. Никола Димитрова (ИВЕ)  
док. д-р Александър Димитров (ИГ-БАН)

**Членове:**  
проф. д-р Яни Топалова (БФ)  
проф. д-р Орлис Загоров (ИВЕ)  
проф. д-р Светла Маринова (ИП)  
проф. д-р Елена Желева (ЛТУ)  
проф. д-р Димитър Талашев (УНСС)  
док. д-р Радко Петков (ИМХ-БАН)  
док. д-р Анна Дамкова (ИИИЕН-БАН)  
док. д-р Янко Найденов (ИВЕ)  
док. д-р Юлиана Маркова (БФ)  
док. д-р Плунев Божков (ЛТУ)  
док. д-р Емил Атанасов (У-т Курят, Турция)  
дип. инж. Маргарита Сарова (НТСИД)  
дип. инж. Георги Крумев (НТСЛТ)  
дип. инж. Борис Тихолов (БФФ)  
дип. инж. Стела Блатова (Опека-Инг.АД)

**Научен комитет**

**Председател**  
докл. проф. Александър Александров (ИГ-БАН)

**Зам. председател:**  
докл. д-р Георги Кастан (ОСА)

**Членове:**  
докл. проф. Васил Стурен (ФЕТС)  
чл. кор. проф. Дамян Дамянов (СУИ, ИВЕ)  
чл. кор. проф. Атанас Коазчев (ЛТУ)  
проф. д-р Димитър Нанков (ИИЕН)  
проф. д-р Иван Нанков (ИМХ-БАН)  
проф. д-р Георги Петков (АФСЗ)  
проф. д-р Вълко Вълков (НТССЗ)  
проф. д-р Георги Минчев (УНСС)  
проф. д-р Менчо Тешмаров (ОНД)  
проф. д-р Димитриана Стойчева (ИП)  
проф. д-р Светла Русева (ИП)  
проф. д-р Филип Рибарова (ФОНХ МУ)  
док. д-р Боян Захариев (ИВУ)  
док. д-р Валентин Козмидиски (ИМХ-БАН)  
док. д-р Еманюел Котева (ИТС)  
док. д-р Еман Ганев (ЛТУ; СЛА)  
дип. инж. Димитър Попов (СЕП)

За изпълнителна информация и изпращане на заявки, обекти и доклади:

ПълнишСайСет-Еко ЕООД  
б. к. 603  
1000 София  
тел.: (02) 987-10-79 факс: (02) 962-04-47 e-mail: [jve15com2012@abv.bg](mailto:jve15com2012@abv.bg)

**СИМПОЗИУМ: „МЕСТА – ТРАНСГРАНИЧНА РЕКА:  
ПРОБЛЕМИ И ПРЕДЛОЖЕНИЯ ЗА РЕШАВАНЕТО ИМ“  
София, България, 22–23 март 2005 г.**

**ПОСВЕТЕН НА СВЕТОВНИЯ ДЕН НА ВОДАТА**

**ОРГАНИЗАТОР** Научен екип на два проекта по Пета рамкова програма на ЕС: „Без желязна завеса от подпрограмата качество на живота и управление на живите ресурси“, контракт № QLK5-CT-2001-01401 (януари 2002 – 30.12.2004 г.) и

„Интегрирано управление на трансгранични речни басейни“ – TRANSCAT от подпрограмата „Energy, Environment and Sustainable Development“, контракт № EVKI-CT – 2002 – 00124 (01.02.2003 – 01.02.2006), от Института по водни проблеми при Българска академия на науките, София – 1113, ул. Акад. Г. Бончев“ бл. 1

**СЪОРГАНИЗATORI:**

Съюз по водно дело при НФ НТС,  
Сдружение на експертите в България по екотехнологии  
(СЕБЕ)

**ОРГАНИЗАЦИОНЕН КОМИТЕТ:**

Проф. дтн. инж. Иван Иванов – ИВП-БАН, председател  
Ст.н.с. II ст. д-р Емил Бурназки – ИВП-БАН, секретар  
Инж. Маргарита Сярова – Съюз по водно дело, НФ НТС, член  
Инж. Василка Пенева – ИВП-БАН, член  
Инж. Людмила Апостолова – ИВП-БАН, член

**ПРОГРАМЕН КОМИТЕТ:**

Проф. д.т.н. инж. Иван Иванов – ИВП-БАН, председател  
Ст.н.с. II ст. д-р Емил Бурназки – ИВП-БАН  
Проф. д.х.н. Слави Иванов – СЕБЕ

д-р Емил Бурназки

- Организатор на работна среща с Градско сдружение на хидроенергетиците към НТС и ФНТД, София, за подготовка на Симпозиум за река Места по време на честванията на Световния ден на водата през 2005, 1 март 2005 г., София.
- Съорганизатор на Семинар-дискусия “Използване на водите на трансграничната река Места на българска територия” със специалисти и членове на Градско сдружение на хидроенергетиците към НТС и ФНТД, София, 29 декември 2004 г., София.
- Съорганизатор на среща на кметовете на общини Гоце Делчев, Гърмен, Сатовча и Хаджидимово за обсъждане на използването и оразването на водите на р.Места, 10 септември 2004 г., гр.Гоце Делчев.
- Организатор на Информационен семинар с Басейнова дирекция на западнобеломорски район при МОСВ, Благоевград, за внедряване на ГИС в мащаб 1:50 000 за водосбора на р.Места, 11 юни 2004 г., гр. Благоевград

Съорганизатор и член на Научния комитет  
на Международна конференция във Венеция, Италия, март 2004 г.  
[http://www.feem-web.it/transcat\\_conf/05comsec.htm](http://www.feem-web.it/transcat_conf/05comsec.htm)

Conference on  
**INTEGRATED WATER MANAGEMENT OF TRANSBOUNDARY CATCHMENTS: A CONTRIBUTION FROM TRANSCAT**  
Palazzo Zorzi, Venice, Italy  
24-26 March 2004

**- Scientific Committee and Secretariat -**

***Scientific Committee***

NICOLA BAZZURRO, *Azienda Mediterranea Gas e Acqua - Italy*  
ZUZANA BOUKALOVÁ, *GEO Group, a. s. - Czech Republic*  
EMIL BOURNASKI, *Institute of Water Problems - Bulgaria*  
MARCO ANTONIO ESTRELA, *Instituto de Soldadura e Qualidade - Portugal*  
CARLO GIUPPONI, *Fondazione Eni Enrico Mattei - Italy*  
JIRI HORÁK, *VSB - Technical University of Ostrava - Czech Republic*  
JIRI LEV, *InterConsult ASA - Norway*  
JORGE LOREDO, *Universidad de Oviedo - Spain*  
YANNIS MYLOPOULOS, *Aristotle University of Thessaloniki - Greece*  
JAN W. OWSINSKI, *Instytut Badan Systemowych Polskiej Akademii Nauk - Poland*  
GIORGIO SAIO, *Geographical Information System International Group - Italy*  
STEFAN WOHNLICH, *Ruhr-University of Bochum - Germany*

***Conference Secretariat***

[Fondazione Eni Enrico Mattei](#)  
Scientific Secretariat: [transcat@feem.it](mailto:transcat@feem.it) , Silvia Bertolin  
Logistical Secretariat: [Angela Marigo](#)

Оргсекретар на Семинар-дискусия “*Опазване и използване на водите на трансгранична река Места в съответствие с Европейската директива за водите*”,  
4-5 декември 2003 г., гр. Гоце Делчев.



Институт по водни проблеми на Българска академия на науките  
Bulgarian Academy of Sciences Institute of Water Problems

**Опазване и използване на водите на  
трансгранична р.Места в съответствие с  
Европейската директива за водите**

семинар – дискусия,  
4-5 декември 2003 г., гр. Гоце Делчев

Сборник с доклади под редакцията на  
И. Иванов, Е. Бурназки и Р. Петков

**The transboundary Mesta River water use and  
preservation in accordance with the requirements of  
the EU Water Framework Directive**

Seminar Proceedings,  
4-5 December 2003, Gotze Delchev.  
Edited by I. Ivanov, E. Bournaski and R. Petkov

**ПРОГРАМЕН КОМИТЕТ:**

проф.дтн инж.Иван Иванов – ИВП-БАН (Председател),  
ст.н.с. II ст.д-р Емил Бурназки - ИВП-БАН  
ст.н.с. II ст.д-р Радко Петков - ИВП-БАН  
Красимира Тагарева, Директор на Басейнова дирекция,  
Западнобеломорски район, МОСВ

**ОРГАНИЗАЦИОНЕН КОМИТЕТ:**

проф.дтн инж.Иван Иванов – ИВП-БАН (Председател),  
ст.н.с. II ст.д-р Емил Бурназки (секретар)  
Владимир Москов  
ст.н.с. II ст.д-р Радко Петков - ИВП-БАН  
н.с. I ст. д-р Рудан Николов  
инж. Василка Пенева  
инж. Людмила Апостолова  
инж. Иван Терзиев  
Деян Попов

**SCIENTIFIC COMMITTEE:**

Prof. D.Sc. Eng. Ivan Ivanov – IWP – BASci. (Chairman)  
Research Assoc.Prof.Dr. Emil Bournaski  
Research Assoc.Prof.Dr. Radko Petkov  
*Kassimira. Tagareva* - Director of West-Aegean Basin Directorate –  
MOEW

**ORGANIZING COMMITTEE:**

Prof. D.Sc. Eng. Ivan Ivanov – IWP – BASci. (Chairman)  
Research Assoc.Prof.Dr. Emil Bournaski (Secretary)  
Vladimir Moskov  
Research Assoc.Prof.Dr. Radko Petkov  
Research Associate Dr. Roudan Nikolov  
Eng. Vassilka Peneva  
Eng. Ludmila Apostolova  
Eng. Ivan Terziev  
Deian Popov

Член на Оргкомитет на Национална научна конференция с международно участие  
“Водни ресурси – използване и опазване”, София, 1998 г.

Член на Оргкомитет на Международна младежка школа “Приложение на компютъра в  
хидротехниката и опазване на водните ресурси”, Варна, 1990 г.

Оргсекретар и член на Редакционна колегия на  
Юбилейна научна сесия “25 години Институт по водни проблеми”, София, 1988 г.

Оргсекретар на Първа национална младежка школа “Използване на компютъра в  
хидротехниката”, Приморско, 1986 г.



## Национална научна конференция с международно участие

### ВОДНИ РЕСУРСИ - ИЗПОЛЗВАНЕ И ОПАЗВАНЕ

23-25 септември 1998 г.  
София, България

**Организатори:**  
Българска академия на науките - Институт по водни проблеми  
НТС по Водно дело  
СУБ - Секция "Технически науки"  
Българска национална асоциация по качество на водите  
Почетен председател: акад. Иван Юхновски

**Програмен комитет:**  
Ст.н.с. Г.ст. дтн. инж. Оханес Сантурдян - председател  
Ст.н.с. Г.ст. дтн. инж. Борислав Павлов - зам. председател  
Ст.н.с. Г.ст. дтн. инж. Евгели Монев  
Проф. дтн. инж. Петър Игнатов  
Ст.н.с. Г.ст. д-р инж. Надежда Николова  
Ст.н.с. Г.ст. д-р инж. Марин Радков  
Ст.н.с. Г.ст. д-р инж. Тодор Христов  
Ст.н.с. Г.ст. дтн. инж. Иван Иванов  
Проф. д-р инж. Алтимир Попов  
Проф. д-р. инж. Богдан Казаков  
Ст.код-р инж. Йордан Марински

**Организационен комитет:**  
Ст.н.с. Г.ст. дтн. инж. Борислав Павлов - председател  
Ст.н.с. д-р Емил Бурнази  
Н.с. д-р инж. Изанка Димитрова  
Н.с. д-р инж. Димитър Маринов  
Н.с. инж. Красимира Николова  
Инж. Маргарита Сиркова  
Надежда Попова  
Венета Пантелеева

**Адрес на организационния комитет:**  
Институт по водни проблеми - БАН  
ул. "Акад. Г. Бончев", бл.1, 1113 София,  
тел.: 02/72-25-72; 02/71-00-95; Факс: 02/72-25-77  
E-mail: BPAVLOV@BGCICT.ACAD.BG  
Internet: <http://sir.iwp.acad.bg>

**Тематични направления:**  
I. Проблеми на комплексното използване и опазване на водните ресурси.  
II. Проблеми на качеството на водните ресурси.  
III. Хидравлични и хидрофизични проблеми на водните системи.  
IV. Проблеми на устойчивостта на хидротехнически съоръжения.

**Място на провеждане:**  
Научно-технически съюз по водно дело, ул. „Г.С. Раковски“ № 106, зала 3.

**Регистрация на участниците в конференцията:**  
На 22.09.1998г. от 10 до 18 часа - в Института по водни проблеми  
ул. "Акад. Г. Бончев", бл.1, София, тел: 722 572  
На 23.09.1998г. от 8 до 12 часа - в НТС, ул. „Г.С. Раковски“ № 106, София,  
фойната на зала 3.

**Програмата предвижда:**  
1. Регламент за изнасяне на докладите - 10 мин.  
2. Официални языци - български и английски.  
На заседанието ще бъдат проведени дискусии по изнесените доклади.

Федерация на научно-техническите дружества  
-Съюз по бойно дело  
Българска академия на науките -  
-Институт по бойни проблеми  
Научно-бънедримелски и информационен  
център при АКОПС  
Международно научно-производствено  
обединение "Инженеромашка"  
Българска демократична младеж

Международна младежка школа  
"Приложение на компютъра в хидромеханиката  
и спазване на бойните ресурси"  
Варна, 12 - 16 октомври 1990

Международна младежка школа  
"Применение компьютера в гидромеханике  
и охрана боевых ресурсов"  
Варна, 12 - 16 октября 1990

International Youth School  
"Application Of Computers In Hydrotechnics  
And Water Source Protection"  
Varna, 12 - 16 October 1990

#### ОРГАНИЗАЦИОНЕН КОМИТЕТ

ст.н.с.и ст.ктн инж. Н.НИКОЛОВА  
ст.н.с.и ст. ктн инж. Т.ХРИСТОВ  
нс инж. С.ТАНЕВ  
инж. М. СЯРОВА

ст.н.с.ктн инж. Г.МИЛУШЕВ  
ст.н.с.и ст.ктн инж. С.ГРИГОРОВ  
нс ктн инж. В.МИХАЙЛОВ  
ст.н.с.ктн инж. Б.ГЕОРГИЕВ  
ст.н.с.и ст. дтн инж. И. ИВАНОВ  
н.с.ктн Е. БУРНАЗКИ  
н.с.инж. Е. АНГЕЛОВ

БЪЛГАРСКА АКАДЕМИЯ НА НАУКИТЕ

ИНСТИТУТ ПО ВОДНИ ПРОБЛЕМИ

СБОРНИК С ДОКЛАДИ

НА

ЮБИЛЕЙНА НАУЧНА СЕСИЯ

„25 ГОДИНИ ИНСТИТУТ ПО ВОДНИ ПРОБЛЕМИ“

18 – 19 октомври 1988 г., София

София 1988 г.

РЕДАКЦИОННА КОЛЕГИЯ:

проф.дтн.инж. П.Игнатов – главен редактор

н.с.кtn. Е.Бурназки – секретар на Оргкомитета

ст.н.с.кtn.инж. Б.Георгиев

ст.н.с.кtn.инж. С.Григоров

ст.н.с.Іст.кtn.инж. З.Дянков

ст.н.с.Іст.дтн.инж. И.Иванов

ст.н.с.кtn.инж. П.Квасников

ст.н.с.кtn.инж. К.Кочев

ст.н.с.Іст.дтн.инж. Е.Монев

ст.н.с.Іст.кtn.инж. Н.Николова

ст.н.с.кtn.инж. Б.Павлов

ст.н.с.кtn.инж. О.Сантурджян

ст.н.с.кtn.инж. Т.Христов

ИК НА ДКМС  
БЪЛГАРСКА АКАДЕМИЯ НА НАУКИТЕ  
ИНСТИТУТ ПО ВОДНИ ПРОБЛЕМИ  
СЪВЕТ ПО ТНТМ ПРИ НООПТИ ПРИ БАН

ПЪРВА  
НАЦИОНАЛНА МЛАДЕЖКА ШКОЛА  
"ИЗПОЛЗУВАНЕ НА КОМПЮТЪРА В ХИДРОТЕХНИКАТА"

28.09. - 05.10.1986 г гр.Приморско

НАУЧЕН СЕКРЕТАРИАТ: проф.дтн.инж.П.Игнатов - председател  
ст.н.с.Ист.ктн.инж.Здр.Дянков, ст.н.с.Ист.дтн.инж.Ив.Иванов,  
ст.н.с.Ист.ктн.инж.К.Кочев, ст.н.с.Ист.ктн.инж.М.Михайлов,  
ст.н.с.Ист.ктн.инж.Н.Николова, ст.н.с.ктн.инж.Т.Христов,  
ст.н.с.дтн.инж.Зв.Монев, ст.н.с.ктн.инж.Б.Георгиев,  
ст.н.с.ктн.инж.Б.Павлов

ОРГАНИЗАЦИОНЕН КОМИТЕТ:

председател: з.д.т.проф.дтн.инж.П.Игнатов

секретар: н.с.ктн.Емил Бурнашки

членове: н.с.дтн.Ив.Димов

н.с.ктн.Кр.Георгиев

н.с.ктн.инж.М.Иванов

н.с.ктн.инж.С.Григоров

н.с.ктн.Р.Петков

инж.Л.Колева

н.с.инж.В.Михайлов

технически отговорници: А.Морданова, Д.Личева, И.Бачева

НАУЧНИ НАПРАВЛЕНИЯ НА ШКОЛАТА:

1. Числено моделиране в хидравликата
2. Числено моделиране при изследване на хидротехническите съоръжения
3. Оптимално планиране и управление на водостопански системи
4. Автоматизиране на изследванията в хидротехниката

Член / Member of Organizing Committee of International Conference

HYDROMECHANISATION 9, Miskolc, Hungary, 1995,

HYDROMECHANISATION 8, Magdeburg, Germany, 1993,

HYDROMECHANISATION 7, Varna, Bulgaria, 1991.

*Address of the conference organisers:*

**Prof. Dr. Iván TARJÁN**  
Head of Department

MISKOLCI EGYETEM

Eljárástechnikai és Geotechnikai  
Berendezések Intézet  
Eljárástechnikai Tanszék

H-3515 MISKOLC-EGYETEMVÁROS

Tel: 36 (46) 365-111

Fax: 36 (46) 369-554

Telex: 62 223 miedy

**Prof. Dr. Elemér DEBRECZENI**  
Head of Department

MISKOLCI EGYETEM

Eljárástechnikai és Geotechnikai  
Berendezések Intézet  
Geotechnikai Berendezések Tanszék

H-3515 MISKOLC-EGYETEMVÁROS

Tel: 36 (46) 365-111

Fax: 36 (46) 369-554

Telex: 62 223 miedy

## UNIVERSITY OF MISKOLC

Faculty of Mining Engineering  
Institute of Process Engineering and  
Equipments for Geotechnics

## HYDROMECHANISATION 9

Ninth International Conference on  
Hydromechanisation

**József FAITLI**  
Lecturer

MISKOLCI EGYETEM

Eljárástechnikai és Geotechnikai  
Berendezések Intézet  
Eljárástechnikai Tanszék

H-3515 MISKOLC-EGYETEMVÁROS

Tel: 36 (46) 365-111

Fax: 36 (46) 369-554

Telex: 62 223 miedy

E-mail: ejffaitlj@gold.uni-miskolc.hu

**Dr. Ljudmilla BOKÁNYI**  
Senior Lecturer

MISKOLCI EGYETEM

Eljárástechnikai és Geotechnikai  
Berendezések Intézet  
Eljárástechnikai Tanszék

H-3515 MISKOLC-EGYETEMVÁROS

Tel: 36 (46) 365-111

Fax: 36 (46) 369-554

Telex: 62 223 miedy

Miskolc, Hungary

**29-31 August 1995**

\* \* \*

Since 1979 a biannual international conference entitled **Hydromechanisation** has been held in various European countries. The conferences have dealt with the characteristics and flow of solid-fluid material systems, hydrotransport and its equipment, the processes related to hydrotransport as well as with high-speed fluid jet cutting and extraction and recently have been extended to hydraulic processes of environmental engineering and waste management.

The conferences discussing issues of science, technology and economy together with the papers presented provide favourable opportunities for the professionals of the fields to meet, to exchange opinions and expertise and to gain insight at international level.

It is an honour and privilege for the Scientific Committee of the Hydromechanisation Conferences to invite you to Miskolc, Hungary, to attend the conference

### HYDROMECHANISATION 9

and to ask you to be an active participant.

The Scientific Committee of the Hydromechanisation conferences:

Prof. Dr. Tarján, I. (H)  
Prof. Dr. Debreczeni, E. (H)  
Prof. Dr. Kecke, H. J. (D)  
Dr. Richter, H. (D)  
Prof. Dr. Wiedenroth, W. (D)  
Prof. Dr. de Koning, J. (NL)

Prof. Dr. Klich, A. (PL)  
Prof. Dr. Palarski, J. (PL)  
Prof. Dr. Abadjiev, Ch. (BG)  
Dr. Bournaski, E. (BG)  
Dr. Suldumirov, G. (Russia)

- A** Characteristics and flow of solid-fluid material systems
- B** Hydrotransport and hydromechanisation. High-speed water and mix jet cutting and extraction. Processes and equipment, operation and economic issues. Measuring techniques.
- C** The applications of hydromechanisation. Hydraulic processes in environmental engineering, waste management, mining, the construction industry and other industries.

Plenary sessions will be held at the conference. 30 minutes will be available for each oral presentation and the discussion following it. A professional excursion is planned for the conference.

### Preliminary registration

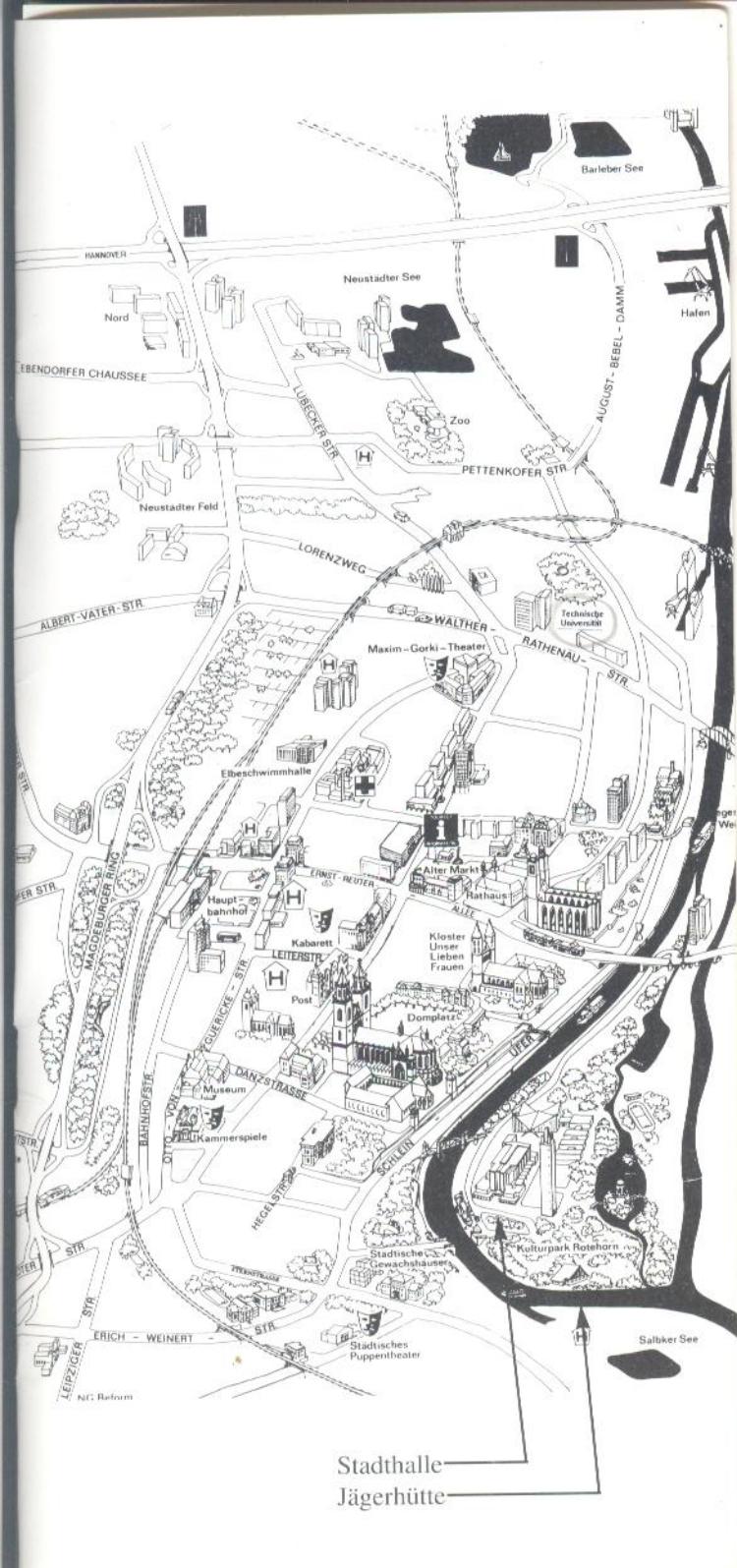
You are kindly invited to register your intention to attend the conference on the enclosed registration form by **31 January 1995**. If you wish to present a paper in one of the above fields, please fill in the form accordingly with the title of your paper and enclose a maximum 10 line summary in English or German.

The Scientific Committee will decide about accepting your paper for the conference programme and its inclusion in the conference proceedings and inform you about its decision by **15 March 1995**. You are asked to submit your paper in a length of maximum 10 pages in English or German by **31 May 1995**. You will be informed about the possibility of oral presentation at the conference in the conference programme, which will be sent to you by **30 April 1995**.

The registration fee is 400 DM, which includes the costs of the conference proceedings, a copy of which you will receive on arrival.

The official languages of the conference are Hungarian, German, English.

The conference Hydromechanisation 9 will deal with recent research and development achievements of the scientific and professional field in the following topics:



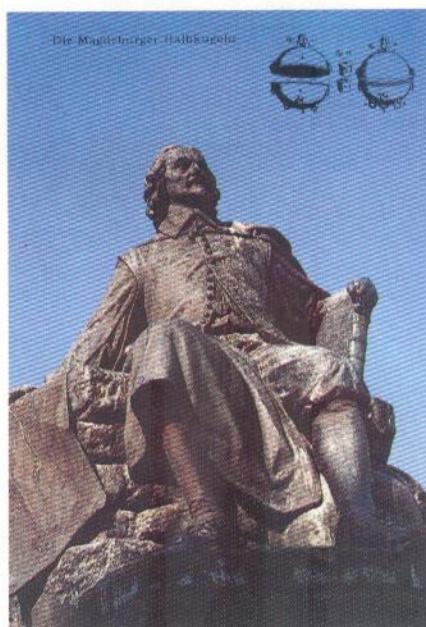
TECHNISCHE UNIVERSITÄT  
„Otto von Guericke“  
MAGDEBURG  
Institut für Strömungstechnik  
und Thermodynamik



## Hydromechanisation 8

internationales Kolloquium  
und Workshop

21. bis 23. September 1993  
Magdeburg, Bundesrepublik Deutschland



TECHNOLOGIETRANSFER- UND  
INNOVATIONSFÖRDERUNG  
MAGDEBURG GmbH



## GRUSSWORT

Wir freuen uns, daß "Hydromechanisation 8" nunmehr von einem mittel-osteuropäischen Kolloquium zu einer gesamteuropäischen Veranstaltung hinführt. Schon immer Anliegen dieser, 1979 an der TU Miskolc, Ungarn, begonnenen Kolloquiumsreihe, 1991 in Varna, Bulgarien, aktiv in Angriff genommenen Perspektive, soll das Kolloquium 1993 in Magdeburg einen weiteren Schritt in diese Richtung deutlich machen.

Es sind alle, die sich diesem Anliegen verbunden fühlen, herzlich willkommen; sei auch ein gesamteuropäisches Handeln noch nicht in Sicht. Um so mehr verdient der west- osteuropäische Gedankenaustausch besondere Beachtung.

1979 noch vor allem dem hydraulischen Transport verschrieben, ist diese Thematik zum Teil noch heute zentrales Anliegen des Kolloquiums; es stehen jedoch ebenso Verallgemeinerungen, bzw. die Behandlung von fest-flüssig-Systemen im allgemeinen im Vordergrund des Erfahrungsaustausches. Neben der verbleibenden Bedeutung im Bergbau, wendet sich das Interesse der Behandlung und Verbringung von Rest- sowie Abfallstoffen zu.

Der Themenkreis umfaßt somit wissenschaftliche, technische, ökologische und auch ökonomische Fragen von fest-flüssig-Systemen bei hydromechanischen Technologien sowie die zugehörigen Anlagen und Ausrüstungen.

Das ständige Komitee Hydromechanisation, gleichzeitig wissenschaftliches Komitee von Hydromechanisation 8

Prof. Dr. habil. Tarjan, I. (H)

Dr. habil. Debreczeni, E. (H)

Prof. Dr. Kecke, H. J. (D)

Dr. Richter, H. (D)

Prof. Dr. habil. Polarski, J. (PL)

Prof. Dr. habil. Klich, A. (PL)

Prof. Dr. habil. Abadjiev, Ch. Prof.

(BG)

Dr. habil. Bournaski, E. (BG)

Prof. Dr. de Koning, J. (NL)

Dr. Suldimirov, G. (GUS)

Prof. Dr. Wiedenroth, W. (D)

# Internationales Kolloquium und Workshop HYDROMECHANISATION 8

## TAGUNGSPROGRAMM

### Dienstag, 21. September 1993

8.00 Anmeldung, Aufbau Poster, Präsentationen

10.00 Eröffnung

Prof. Dr.-Ing. Kecke, H. J.

Institutsdirektor des Institutes für Strömungstechnik und Thermodynamik, TU "Otto von Guericke" Magdeburg

### Anwendung hydromechanischer Technologien

10.30 Scholz, G.  
(TU Magdeburg, Institut für Strömungstechnik und Thermodynamik)  
**Haldensanierung mittels hydromechanischer Einkapselung**

11.00 Pudel, S.  
(TU Magdeburg, Institut für Strömungstechnik und Thermodynamik)  
**Transport- und Fließeigenschaften von Hafenschlick und deren Einfluß auf die Anlagenkonfiguration**

11.30 Voß, J.  
(VARIA GmbH Heinersdorf)  
**Entwicklung und Erprobung eines hydrodynamischen Seesanierungsgerätes**

12.00 Mittagspause

13.30 Wolff, H., Fang, G.  
(TU Berlin, Institut für Bergbauwissenschaften)  
**Das strömungsmechanische Verhalten von Bohrklein in Ringräumen von Tiefbohrungen**

14.00 Abadjiev, C. B.  
(Universität für Architektur und Bauwesen Sofia)  
**Experience and problems of the hydrotransport of the mill tailings in Bulgaria**

14.30	Myslek, Z., Plewa, F. (Technische Universität Gliwice) <b>Research into changes in grain-size and compressibility of backfill materials in the process of hydraulic transport from the surface to underground workings</b>
15.00	Kaminski, J. (Hauptinstitut für Bergbau - Katowice) <b>Effect of pipeline slope pressure losses for flow of stowing mixture containing coarse grain</b>
15.30	Kaffeepause
<b>Transport- und Fließeigenschaften, Strömungstechnik</b>	
16.00	Tarjan, I., Faitli, J., Antal, G. (Universität Miskolc) <b>Einfluß von Größe und Anzahl der festen Körner auf die Fließeigenschaften</b>
16.30	Ivanov, I., Bournaski, E., Van Huan, H. (Institut für Wasserwirtschaft, Bulgarische Akademie der Wissenschaften - Sofia) <b>Hydraulic gradient of polydisperse suspension flows in horizontal pipe at minimum transport velocity</b>
17.00	Debreczeni, A. (Universität Miskolc) <b>Untersuchung der Bewegung nicht kugelförmiger Körner im newtonischen Bereich in einem sich erweiternden Kegel</b>
17.30	Maradjieva, M. (Universität für Architektur und Bauwesen - Sofia) <b>Designing of optimum parameters for hydraulic transport systems in pipes</b>
18.00	Bierstehconvente

## Mittwoch, der 22. September 1993

8.00	Bournaski, E. (Institut für Wasserwirtschaft, Bulgarische Akademie der Wissenschaften - Sofia) <b>On the inertial coupling between solid and liquid phase in slurry pipe flow</b>
8.30	Bartosik, A. S. (Technische Universität Kielce) <b>Turbulent boundary layer in vertical slurry flow</b>
9.00	Weber, M. (Universität Karlsruhe, Institut für Fördertechnik) <b>Anwendung der Durand-Gleichung auf die pneumatische Förderung von Feststoffen</b>
9.30	Plewa, F., Wanat, K. (Technische Universität Gliwice) <b>Mathematical model of multiphase flow (water-gas-solid bodies)</b>
10.00	Kaffeepause
<b>Messtechnik, Prozeßüberwachung</b>	
10.30	Wiedenroth, W. (Universität GH Paderborn, Abteilung Meschede) <b>Elektronische Meßverfahren für die kritische Geschwindigkeit und Konzentrationsverteilung in horizontalen Förderleitungen</b>
11.00	Wetzlar, D. (Universität GH Paderborn) <b>Verfahren zur prozeßbegleitenden Überwachung der Feststoffkonzentrationsverteilung bei Hydrotransportvorgängen</b>
11.30	Sobota, J., Kril, S. I. (Institut für Hydro- und Geotechnik Wrocław; Institut für Hydromechanik der Ukrainischen Akademie der Wissenschaften) <b>The determination of hydraulic mixture discharge in the case of measurements using venturi tube</b>
12.00	Mittagspause

# HYDROMECHANISATION 7

Siebentes internationales Kolloquium über  
Hydromechanisierung im Bergbau und im Bauwesen  
Bulgarien, Varna 4. 9. bis 6. 9. 1991

Veranstalter:

Föderation der wissenschaftlich-technischen Vereine Bulgariens

Verband Bergbau, Geologie und Hüttenwesen

Verband Bauwesen

Verband Wasserwesen

Wissenschaftliches Institut für Forschung und Projektierung

"NIPRORUDA" Sofia

Universität für Bergbau und Geologie Sofia

Universität für Architektur, Bauwesen und Geodäsie Sofia

## STÄNDIGES INTERNATIONALES KOMITEE "HYDROMECHANISATION"

## ORGANISATIONSKOMITÉE

Vorsitzender:  
Abadjiev, Ch., Prof.Dr.Ing.habil.; Universität für Architektur, Bau  
wesen und Geodäsie Sofia  
stellvertretender Vorsitzender:  
Penev, A., Doz.Dr.Ing.habil.; Universität für Bergbau und Geologie  
Sofia  
Sekretär:  
Kussev, W., Dr.Ing.; KNIPPI "Niproruda" Sofia  
Mitglieder:  
Grosev, G., Prof.Dr.Ing.; Technische Universität Sofia  
Ivanov, I., Dr.Ing.habil.; Bulgarische Akademie der Wissenschaften  
Atanasov, A., Doz.Dr.Ing.; Universität für Bergbau und Geologie  
Sofia  
Pankov, M., Ing.  
Sjarova, M., Ing.  
Russeva, M.; Föderation der wissenschaftlich-technischen  
Vereine Bulgariens  
Chadjidimov, Ing.; KNIPPI "Niproruda" Sofia  
Tolev, N., Dr.Ing.; NITI "Energoprojekt" Sofia  
Kaltschev, I., Dr.Ing.; Universität für Architektur, Bauwesen und  
Geodäsie Sofia  
Burnaski, E., Dr.rer.nat.; Bulgarische Akademie der  
Wissenschaften  
Sarkov, E., Ing. ; KNIPPI "Niproruda" Sofia  
Petrov, R., Ing.; Universität für Architektur, Bauwesen und  
Geodäsie Sofia  
Tachrilova, S., Ing.  
Karadimow, A., Ing.; D.F. "Polimet"

## **INHALTSVERZEICHNIS**

in alphabetischer Reihenfolge der Autoren

(Als Manuskript in der von den Autoren vorgelegten Form gedruckt)

Abadjiev, C.; Troshanov, S.(BG)

BEACH INCLINATION AND GRADING OF THE SPIGOTTED TAILINGS OF UP-STREAM TAILINGS DAM "ASAREL" (bulg.)

Abadjiev, C.(BG)

CONSOLIDATION OF HYDRAULIC FILLED TAILINGS DAMS (bulg.)

Abadjiev, C.; Petrov, R.(BG)

INSTRUMENTATION AND MONITORING OF SPIGOTTED TAILINGS DAMS (bulg.)

Antal, G.; Faitli, J.(H)

MESSUNG DES ABGESETZTEN FESTSTOFFBETTES IN WAAGERECHTEN HYDRAULISCHEN TRANSPORTROHREN

Arpad, M.(H)

POSSIBILITIES TO CHANGE OVER TO AN UP-TO-DATE ENVIRONMENT SAVING HYDRAULICAL TRANSPORT AND DISPOSAL OF CINDER-FLY ASH THICK SLUDGE IN EXISTING THERMAL POWER PLANTS

Babitschev, N.(USSR)

BOREHOLE HYDROTECHNOLOGY - A NEW WAY OF MASTERING THE EARTH'S ENTRAILS (russ.)

Berman, V.; Fadeitschev, V.(USSR); Vlasak, P.(CS)

POSSIBILITY OF USING THE HYDROCONTAINER PIPELINE IN MINING AND EXTRACTIVE INDUSTRY AND CONSTRUCTION (russ.)

Berman, V.; Orlova, L.(USSR)

NUMERICAL CALCULATION OF THE BASIC PARAMETERS OF PIPELINE TRANSPORT OF COMPRESSIBLE HETEROGENOUS MEDIA (russ.)

Bournaski, E.; Ivanov, I.(BG)

INVESTIGATION OF TRANSIENT PIPELINE FLOWS OF SOLID-LIQUID SLURRIES (bulg.)

Bratinov, D.(BG)

PROJECT SOLUTIONS AND EXPLOITATION OF HYDROTRANSPORTATION SYSTEM OF THE TAILING POND OF "KURDZALI" (bulg.)

Chara, Z.; Matousek, V.; Hrbek, J.; Vlasak, P.(CS)

NON-NEWTONIAN FLOW OF HIGHLY CONCENTRATED FINE-GRAINED SUSPENSIONS; SOME METHODS FOR PIPELINE DESIGN

Debreczeni, E.; Tarjan, I.; Debreczeni, A.(H)

HYDRAULISCHER TRANSPORT MIT NIEDRIGER GE SCHWINDIGKEIT VON FLUGASCHESUSPENSIONEN HOHER KONZENTRATION

Dimov, K.(BG)

GEOTECHNICAL INVESTIGATIONS OF A TAILINGS DAM OF THE CAOLINE INDUSTRY (bulg.)

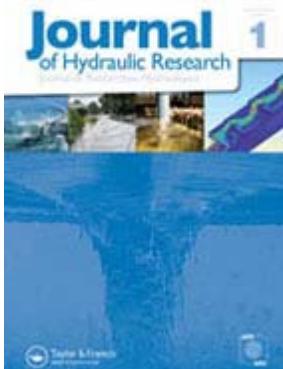
Domjan, J.(H)

DUMPING THE SLAG AND FLY-ASH AS DENSE-SLURRY WITH A FLEXIBLE UP TO DATE AND ENVIRONMENT-FRIENDLY SYSTEM

Рецензент на научни проекти към ФНИ на МОН през последните години.

Член на Временна научно-експертна комисия към ФНИ на МОН с ръководител чл-кор. Емил Хорозов по конкурс “Стимулиране на научните изследвания в държавните висши училища – 2010 - 2011 г.”

Рецензент на публикации в:



More than 260 individuals have contributed to the success of *Journal of Hydraulic Research*. The Editorial Board would like to thank to all having thus contributed to its journal (November 2007- December 2008).

Bourdarias C., France	Jirka G.H., Germany	Schulz H.E., Brazil
Bournaki E., Bulgaria	Johnson M.C., USA	Shao S., UK

Рецензент на публикации в: *Journal of Theoretical and Applied Mechanics*, *International Journal "Oxidation Communications"*



*International Journal of Solids and Structures*, *Journal of the Balkan Tribological Association*, *Journal of Environmental Protection and Ecology*, BENA



**International Journal of  
SOLIDS and STRUCTURES**

Editor-in-Chief: Charles R. Steele  
Associate Editor: Marie-Louise Steele  
*Division of Mechanics and Computation*  
*Durand Building, Room 262*  
*Stanford University*  
*Stanford, California 94305-4040*  
*fax: (650) 723-1778*  
*email: ijss1@leland.stanford.edu*

February 26, 1998

Dr. E. G. Bournaski  
Institute of Water Problems  
Bulgarian Academic of Science  
Acad G Bonchev St.  
Bldg 1  
1113 Sofia  
Bulgaria

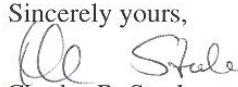
IJSS Manuscript number: 97-158

Title: TRANSIENT F

by: J.

Dear Dr. Bournaski,

Thank you for your evaluation of the manuscript which is referenced above. We appreciate the time and effort you have spent on this review. This will be very helpful to us in reaching a decision and will ensure that the material published in the Journal is of high quality.

Sincerely yours,  
  
Charles R. Steele

PS: Are you aware of the forthcoming **Sixth Pan American Congress of Applied Mechanics (PACAM VI)**? This will be held in **Rio de Janeiro**, 4-8 January, 1999, and should be an interesting and enjoyable meeting. For full information see the web page:  
<http://www-am.stanford.edu/SteeleGroup/PACAMVI>

Рецензент на научни проекти на International Science Foundation, Washington, DC, 1994 г.

Рецензент на научни проекти на Фонда за научни изследвания на Република Грузия  
“Shota Rustaveli National Science Foundation”, Тбилиси, Грузия  
през 2013 година  
през 2012 година  
през 2011 година.

## Peer Review Rating Form

International Science Foundation  
Long-Term Research Grants

Please complete and return by April 25, 1994 to:

International Science Foundation  
1054 31st Street, NW; Suite 110  
Washington, DC 20007 / OR /  
Fax: 202-342-2765 / OR / E-mail: info@isf.org

Only one copy of the form needs to be returned.

The International Science Foundation requests your cooperation in giving candid and complete reviews for each proposal. We wish to fund the most meritorious scientists in the former Soviet Union and Baltic states, and to this end, will rely heavily on peer reviews that comment on both the strengths and weaknesses of each proposal. The Foundation may share peer review comments with applicants, but in strict anonymity.

1. Proposal Number and Science Code (alphanumeric string in upper right corner of proposal - e.g. 12345-PHY3): **30833 PHY2**
2. Principal Investigator (full name as it appears in #1 of proposal): [REDACTED]

Please evaluate this proposal using the criteria enclosed in this peer review packet. Continue on additional sheets if necessary.

- 3a. Qualifications of Principal Investigator and Other Personnel, and 3b. Quality and Feasibility of Proposed Research

4. Overall Rating:  
(Decimal points may be used. Please write numerical grade.)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> 4.5
1.0 poor	2.0 fair	3.0 good	4.0 very good	5.0 outstanding

5. Reviewer Name: **Dr. Emil BOURNASKI**  
Bulgarian Academy of Sciences

6. Reviewer Institution: [REDACTED]

7. Reviewer Signature: **E. Bournaski** Date: **05.04.1994**

8. Additional Reviewers:

*prof. I. Ivanov, Bulgarian Academy of Sciences, Acad G. Bonchev street, Bl. 2A/1  
1113 Sofia, Bulgaria*

9. Conflict of Interests:

Yes, I have a potential conflict of interests.

If you have any relationships with the institution or the persons submitting the proposal, please consider whether they could be construed as creating a conflict of interests for you. If yes, please check the above box and describe in your own words any relationship that might be so construed. You may use a separate piece of paper and attach it to your review.

Regardless of any such relationships, we would like to have your review unless you believe you cannot be objective.

If you do not check the box/submit a separate page, we shall assume that you have no conflict.

# SHOTA RUSTAVELI NATIONAL SCIENCE FOUNDATION

## CERTIFICATE



შოთა რუსთაველი  
NATIONAL SCIENCE FOUNDATION

Hereby the Shota Rustaveli National Science Foundation  
expresses its appreciations to:

Dr.

Emil Bournaski

*as an international Peer Reviewer Having provided high quality and impartial  
evaluation of the project proposals submitted to the calls of state research grants organized  
by Shota Rustaveli National Science Foundation in 2013.*

Sulkhan Sisauri

Director General of the SRNSF

1 Aleksidze str, 0193, Tbilisi, Georgia

[www.rustaveli.org.ge](http://www.rustaveli.org.ge)

# SHOTA RUSTAVELI NATIONAL SCIENCE FOUNDATION



## CERTIFICATE



შოთა რუსთაველი  
NATIONAL SCIENCE FOUNDATION

Hereby the Shota Rustaveli National Science Foundation  
expresses its appreciations to:

Dr.

Emil Bournaski

*as an international Peer Reviewer Having provided high quality and impartial  
evaluation of the project proposals submitted to the calls of state research grants organized  
by Shota Rustaveli National Science Foundation in 2011.*

Sulkhan Sisauri

Director General of the SRNSF

1 Aleksidze str, 0193, Tbilisi, Georgia

[www.rustaveli.org.ge](http://www.rustaveli.org.ge)

Рецензент на научен сборник

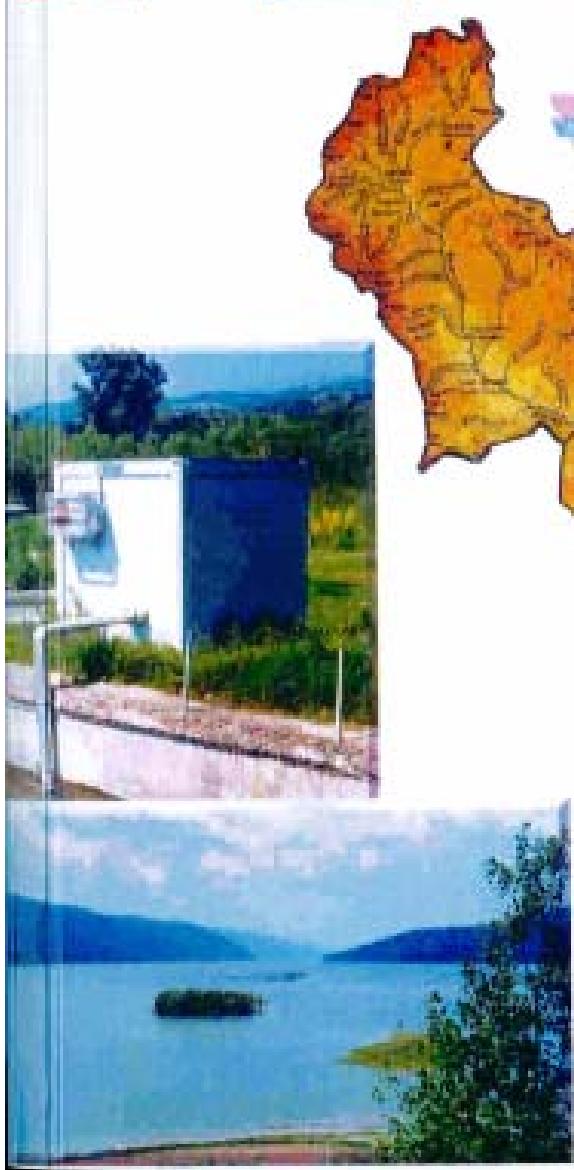
“Опазване и използване на водите на трансгранична река Места в съответствие с Европейската директива за водите”, 4-5 декември 2003 г, гр. Гоце Делчев.  
София, март 2004 г., ИК “Огледало”, ISBN 945-8041-19-7

## СБОРНИК С ДОКЛАДИ

### Опазване и използване на водите на трансгранична река Места в съответствие с Европейската директива за водите



The transboundary Mesta River water use and preservation in accordance to the requirements of the EU Water Framework Directive Proceedings





Институт по водни проблеми на Българска академия на науките  
Bulgarian Academy of Sciences Institute of Water Problems

**Опазване и използване на водите на  
трансгранична р.Места в съответствие с  
Европейската директива за водите**

семинар – дискусия,  
4-5 декември 2003 г., гр. Гоце Делчев

Сборник с доклади под редакцията на  
И.Иванов, Е. Бурназки и Р. Петков

**The transboundary Mesta River water use and  
preservation in accordance with the requirements of  
the EU Water Framework Directive**

Seminar Proceedings,  
4-5 December 2003, Gotze Delchev.  
Edited by I. Ivanov, E. Bournaski and R. Petkov

Sofia, March 2004