



Photos taken at the tenth Danubia-Adria Symposium

On July 17, 1992, the Slovak Parliament accepted the *Declaration of Independence of the Slovak Nation*. Six days later, Czech Prime Minister Václav Klaus and Slovak Prime Minister Vladimír Mečiar met in Bratislava and agreed to dissolve Czechoslovakia. The dissolution took effect on January 1, 1993, when two new countries, the Czech Republic and Slovakia, were born.

Country	Number of papers
Austria	7
Croatia	8
The Czech Republic	19
Hungary	8
Italy	10
Slovakia	4
Germany	3
Macedonia	2
Romania	3
Slovenia	1
<b>Total</b>	<b>65</b>

A hundred and eighteen authors and co-authors coming from 10 countries submitted a total of 65 papers.



Photos taken at the tenth Danubia-Adria Symposium



## THE ELEVENTH DANUBIA-ADRIA SYMPOSIUM

Baden, Austria, 1994



Baden is a small, charming and romantic spa located in Vienna Woods, about 25 km south of Vienna, having a population of about 25,000. It was known to the Romans as *Aquae Cetae* or *Therme Pannonicae*. The settlement was recorded as Padun in 869. It was sacked by Hungarians and Turks several times, but each time it flourished again and received its privileges, including the Coat of Arms and other insignia. In joint command of Polish, Austrian and German troops, the Polish king Jan III Sobieski defeated Turks under

Kara Mustafa in 1683, and saved the besieged Vienna.

The recent history of Baden has been closely connected to the thermal sulphur springs. In the 19<sup>th</sup> century, Baden was the imperial residence. Between 1803 and 1834, the Habsburg Court members spent every summer in Baden. Some famous musicians and composers are connected to Baden as well, such as Joseph Lenner, Franz Liszt, Strauss Father and Strauss Son. Wolfgang Amadeus Mozart and Ludwig van Beethoven also composed in Baden. In the nearby hunting lodge Mayerling, the Crown Prince Rudolf and baroness Maria Vetsera were found dead in 1889.



*Panorama of Baden*

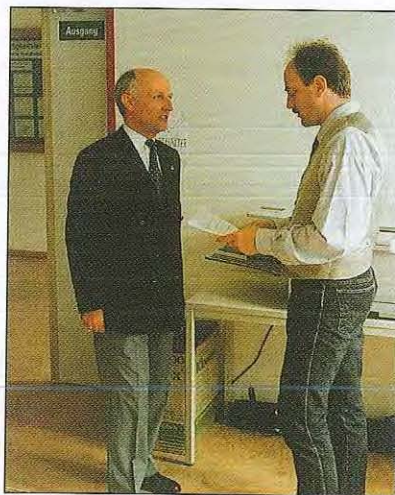


*The monument to Lenner and Strauss*





*The Scientific Committee at Vienna Spring Meeting held in May 1994*



*Members of the Danubia-Adria Committee taken at Vienna Spring Meeting held in May 1994*

After the dissolution of Czechoslovakia in January 1993, the Danubia-Adria Committee embraced six member societies. On top of Austria, Croatia, Hungary and Italy, the Czech Republic and Slovakia joined as new members, too. Therefore, the logotype of the Danubia-Adria Committee was changed into a six-flag hexagon. The Spring Meeting precedent to the eleventh Danubia-Adria Symposium on Experimental Methods in Solid Mechanics took place at the Technical University Vienna.

The eleventh Danubia-Adria Symposium on Experimental Methods in Solid Mechanics took place in Baden near Vienna between September 29 and October 1, 1994.

Country	Number of papers
Austria	14
Croatia	4
the Czech Republic	13
Germany	12
Hungary	12
Italy	9
Romania	3
Slovakia	4
Estonia	1
Ireland	1
Macedonia	2
United Kingdom	1
<b>Total</b>	<b>76</b>

A total of 76 papers was submitted by 165 authors coming from 12 countries.





Symposium dinner

**Preface**

It is now the third time that the "Danubia-Adria Symposium on Experimental Methods in Solid Mechanics" is going to be arranged in Austria. The second symposium (1985) took place in Graz (Styria). At that time the "Italian Association for Stress Analysis — AIAS" joined us for the first time. The sixth symposium (1989) took place in Mösern (near Seefeld, Tyrol). At that time the "Society for Mechanics of formerly Czechoslovakia" was able to join the "Organizing Committee of the Danubia-Adria Symposia". It happened immediately before the big political change in the eastern part of Europe, that means before the so-called "Perestroika" and we have had reason enough to be happy about it because it took us a long time to overcome all the difficulties connected with this step, especially for the colleagues from Czechoslovakia. In the meantime the big change in Europe is still going on. At first the horrible war in former Yugoslavia and later the division of Czechoslovakia into two states. On the list of the now six organizing countries of these symposia it can be seen how the organizing committee reacted. These steps were not too difficult because in reality it was always only the Croatian Society which was an own independent society within the former Yugoslav Society that worked in the committee on their own responsibility, and in case of former Czechoslovakia both societies the Czech as well as the Slovak Society for Mechanics are regarded as successors of the former one. However, real problems are coming up from the fact that the name of these symposia, "Danubia-Adria Symposia...", encourages the national societies of the countries in this area to apply for membership in the organizing committee. In addition, we already have invitations to arrange one of the next symposia in a country which does not belong to the countries which are, at the time being, members of the committee. Of course this development is not only understandable, it is more than that, it is very enjoyable too. The spring meeting 1994 of the organizing committee reacted to this development with a new draft of the statute of the organizing committee, rewritten by Prof. Alessandro Freddi (Bologna). The main point of the new version is that a second kind of membership in the organization committee is established, the so-called "Associated membership". This kind of membership is open (but not strongly limited) to all countries belonging to the so-called "Central European Initiative". Two representatives of the associated members are invited to participate to the Autumn Extended Meeting together with the "Founding Members" considering the following tasks:

- \* Selection of the paper that are to be published in the final Symposia Proceedings,
- \* Suggestion of technical and scientific initiatives,
- \* Suggestion of places for future Symposia.

Especially with the last point the organizing committee reacted to the invitations to organize these symposia not only in the countries of the founding members. Of course the preface is not the right place to mention all the details of the new version of the statute but it is worth to emphasize that the main points of the statute are kept. For instance:

In order to enable young scientists, even students, to attend these symposia the expenses (fee, accommodation) should be kept as low as possible.

In order to enable all participants to listen to all contributions parallel sessions, except the poster session, are to be avoided.

The length of an oral contribution (including discussion) should not be less than 20 minutes.

The symposia should always be arranged in a close contact with the local industry. In addition, an industrial excursion should be offered as part of the symposium.

Now some words to this symposium. As already mentioned the organizing committee of the Danubia-Adria Symposia intends to emphasize the poster session. This is quite similar to the German Symposia in this working field arranged by the German Society for Stress Analysis (GESA) and reacts to the experience that the technical discussions of the contributions go mostly much more into details as after an oral presentation. Therefore, the local organizing committee was looking for a hotel that offered enough room for the poster presentation and underlined the importance of this session through its position in the conference program. Therefore, it is not the increasing number of papers which forces us to enlarge the poster session, it is primarily its importance and, no doubt, the scientific treatment of contributions presented during this session is absolutely the same as for all other contributions. However the increasing number of contributions submitted by authors all over the world demonstrates the expanding role of experimental mechanics and of the vitality of the original idea of the "Danubia-Adria Symposia". On behalf of the Organizing Committee and of the Austrian Society for Experimental Strain Analysis — ASESIA I want to thank all the authors for their contributions, all participants as well as all others who had helped to prepare this symposium.

Rudolf Julius Beer  
ASESA (ÖIÄV)



**ELEVENTH DANUBIA-ADRIA SYMPOSIUM**  
on  
**EXPERIMENTAL METHODS IN SOLID MECHANICS**

**ABSTRACTS**

**BADEN / VIENNA, AUSTRIA**  
**September 29 - October 1, 1994**



## THE TWELFTH DANUBIA-ADRIA SYMPOSIUM

Sopron, Hungary, 1995



Sopron (German: Ödenburg; Croatian: Šopron) is a city in the north-western corner of Hungary. It lies southwest of Neusiedel Lake, 60 km away from Vienna and 220 km away from Budapest. It was originally a Celtic settlement called Scrabantia. Romans conquered this part of Pannonia around 9 BC and founded a city in Scrabantia that became a military outpost. Nowadays, the main square of Sopron occupies the same location as once the Roman forum. During the

migration period, Scrabantia was abandoned. When Hungarians arrived to the area in the 9<sup>th</sup> century, Scrabantia was in ruins. Between the 9<sup>th</sup> and the 11<sup>th</sup> century, Hungarians rebuilt the old Roman city walls and built a castle. The town got its Hungarian name Sopron. The Hungarian King Ferdinand III, later addressed as the Holy Roman Emperor, was coronated in Sopron in 1625. In 1681, Sopron was also the meeting point of the Hungarian Parliament. In 1676, most of the ancient buildings were destroyed by fire and subsequently replaced by baroque structures.



Watch Tower



Centre of the City



The Scientific Committee

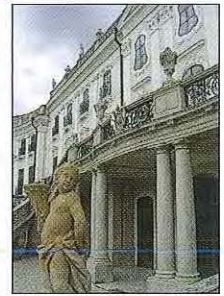




*Spring Meeting in Sopron, May 1995*

The twelfth Danubia-Adria Symposium on Experimental Methods in Solid Mechanics took place in Sopron between October 5 and October 7, 1995. The participants of the Symposium were offered the opportunity

to see the Esterhazy Castle, known as the Hungarian Louvre. On the occasion, the Symposium participants also attended a classical music concert.




*Esterhazy Castle*



*The Scientific Committee in session*





**TWELFTH DANUBIA-ADRIA SYMPOSIUM ON  
EXPERIMENTAL METHODS IN SOLID MECHANICS**  
OCTOBER 05...07, 1995 - SOPRON IN HUNGARY  
**First Announcement and Call for Paper (\*)**

*Organised by :*  
Hungarian Scientific Society of Mechanical Engineers (*GTE*)

*Co-organised by:*  
Austrian Society of Experimental Strain Analysis (*ASESA*)  
Croatian Society of Mechanics (*HDAM*)  
Czech Society of Mechanics (*CSM*)  
Italian Association for Stress Analysis (*AIAS*)  
Slovak Society of Mechanics (*SSM*)

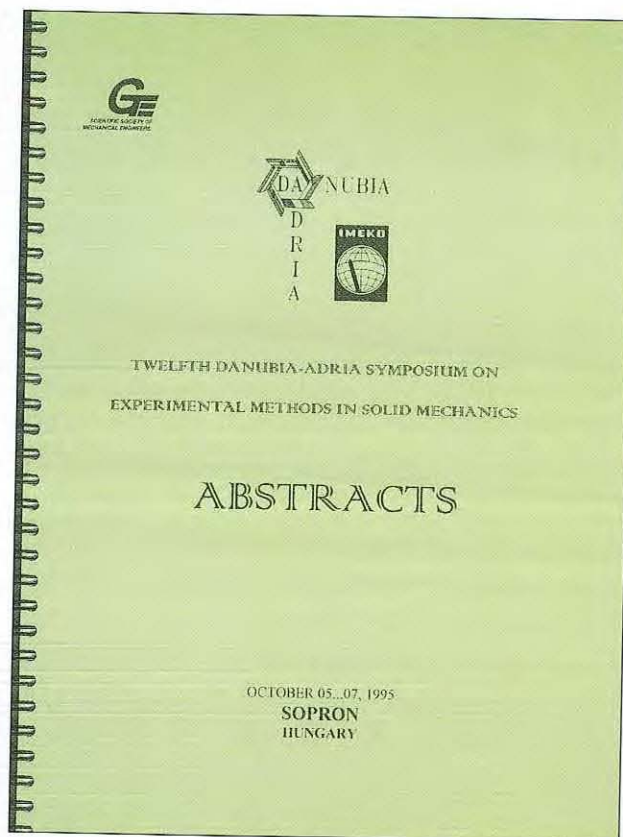
*in co-operation with the:*  
Technical Committee 15 of the IMEKO (*TC 15*)

*Organising Committee:*

Austria:	J. Affenzeller	(Graz)
	R. Beer	(Vienna)
Croatia:	I. Alfrević	(Zagreb)
	S. Jecić	(Zagreb)
Czech Republic:	S. Holý	(Praha)
	J. Višner	(Plzen)
Hungary:	L. Borbás	(Budapest)
	F. Thamm	(Budapest)
Italy:	A. Freddi	(Bologna)
	F. Di Marino	(Trieste)
Slovak Republic:	J. Brilla	(Bratislava)
	M. Držik	(Bratislava)

(\*) Further information and final program including the time of presentation for each author will be sent after receiving the Registration Form

*The First Announcement*



**TWELFTH DANUBIA-ADRIA SYMPOSIUM ON  
EXPERIMENTAL METHODS IN SOLID MECHANICS**

**ABSTRACTS**

OCTOBER 05...07, 1995  
SOPRON  
HUNGARY

*Symposium Proceedings*



*The Scientific Committee*



*I. Huszár and I. Alfrević*

**Country            Number of papers**

Austria	6	Romania	15
Croatia	5	Slovenia	2
the Czech Republic	8	United Kingdom	1
Hungary	11	<b>Total</b>	<b>72</b>
Italy	6		
Slovakia	6		
Germany	9		
Poland	3		

A hundred and forty four authors and co-authors from 11 countries submitted a total of 72 papers.

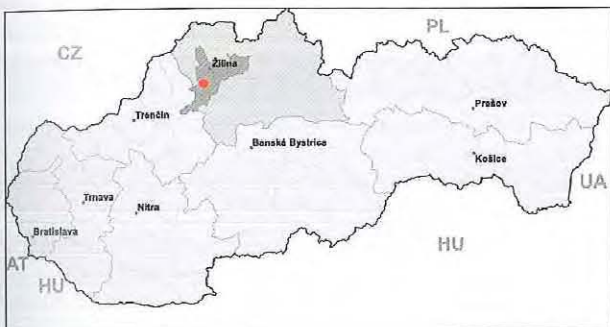


## THE THIRTEENTH DANUBIA-ADRIA SYMPOSIUM

Rajecké Teplice, Slovakia, 1996



Rajecké Teplice (German: Bad Rajetz; Hungarian: Rajecfüdő) lie in the Rajčanka River valley, 15 km south of Žilina and 415 m above the sea level. Its population approximates to 3,000. The place was first marked on the map as Therme in 1376.



*Position of and view on Rajecké Teplice*

The Spring Meeting precedent to the 13<sup>th</sup> Danubia-Adria Symposium was organized in Smolenice Castle (Smolenický Zámok) in May 1996.



*Smolenice Castle*



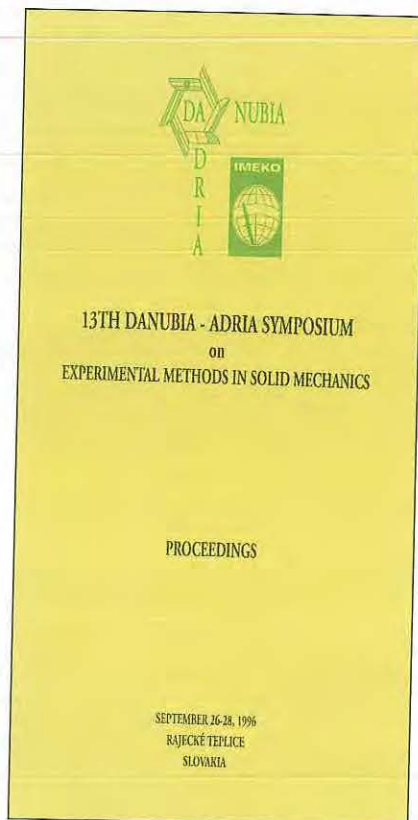


Trip to Rajecké Teplice

The thirteenth Danubia-Adria Symposium was held in Rajecké Teplice between September 26 and September 28, 1996. For the first time ever, the Czech Society of Mechanics and the Slovak Society of Mechanics appear on the documents as well.



The Scientific Committee in session



Second announcement

**13TH DANUBIA-ADRIA SYMPOSIUM**  
ON EXPERIMENTAL METHODS IN SOLID MECHANICS

September 26 - 28, 1996  
Rajecké Teplice - Slovakia

**Organized by:**  
Slovak Society of Mechanics (SSM)

**Co-organized by:**  
Austrian Society of Experimental Strain Analysis (ASESA)  
Croatian Society of Mechanics (CSM)  
Czech Society of Mechanics (CSM)  
Hungarian Scientific Society of Mechanical Engineers (HDM)  
Italian Association for Stress Analysis (AIAS)

**in co-operation with the:**  
IMEKO - Technical Committee 15 (TC 15)

The conference is organized on behalf of the Permanent Committee in co-operation with the Faculty of Mechanical Engineering of the University of Transport and Communication Žilina

**Organizing Committee**

Austria:	J. Affenzeller (Graz)	R. Beer (Vienna)
Croatia:	I. Alfirević (Zagreb)	S. Jecić (Zagreb)
Czech Republic:	S. Holý (Praha)	J. Visner (Plzeň)
Hungary:	L. Borbás (Budapest)	F. Thamm (Budapest)
Italy:	A. Freddi (Bologna)	F. Di Marino (Trieste)
Slovakia:	J. Brilla (Bratislava)	M. Držik (Bratislava)
	P. Pačcek (Žilina)	O. Bokúvka (Žilina)

**Secretary's Office:**

Prof. Dr. Ing. Jozef BRILLA, DrSc D.Sc.  
Council of Scientific Societies  
Štefánikova 49  
811 04 Bratislava  
Slovakia  
Tel./Fax: (+42 7) 49 61 48

Symposium Proceedings and the Second Announcement





*Di Marino, Beer, Jecić, Stupnicki, Afirević and Brilla toasting*



*Symposium dinner*

<b>Country</b>	<b>Number of papers</b>
Austria	1
Croatia	7
the Czech Republic	6
Hungary	3
Italy	11
Slovakia	14
Germany	3
Poland	5
Romania	24
<b>Total</b>	<b>74</b>

On the whole, 138 authors coming from 14 countries submitted 74 papers. The countries of co-authors' establishment missing from the Table are Sweden, Ireland, Bosnia and Herzegovina, and the USA.



## THE FOURTEENTH DANUBIA-ADRIA SYMPOSIUM

Poreč, Croatia, 1997



Poreč (Italian: *Parenzo*; Latin: *Parentium*) is the second largest city in the Croatian part of Istria, with a population of about 12,000. The area has been inhabited since the prehistoric times. In 11 BC it was inhabited by the Illyrian tribe Hystri after whom Istria was named. Romans conquered Istria in 178 and 177 BC, and built the Castrum on a tiny peninsula where the City of Poreč stands today. The peninsula is approximately 400m long and 200m wide on the average. After the fall of the Western Roman Empire, Poreč had been ruled by Ostrogoths, Byzantium and Franks, followed by a short period of independence in the 12<sup>th</sup> century. In 1267, Poreč came under control

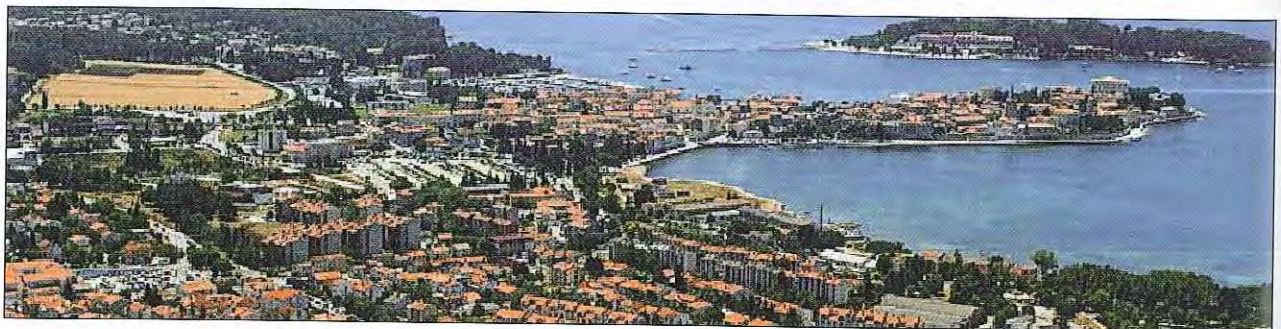
of the Republic of Venice and had remained so for more than five centuries. Within this period, some of the most beautiful palaces and towers had been built. After the fall of the Republic of Venice in 1797, Poreč became a part of the Napoleonic Kingdom of Italy and then of the Illyrian Provinces. Between 1815 and 1918, Poreč was a part of the Austrian, later the Austro-Hungarian Empire. After 1918, it was annexed to the Kingdom of Italy. In 1947, it became a part of Croatia. Poreč has preserved its basic Roman castrum form. Two main streets, *Cardo* and *Decumanus*, are still preserved in their original forms and divide the town into four parts. *Decumanus* is running from east to west of the Roman castrum, i.e. the town. The main transversal street was known as *Cardo*, in Latin *the pivotal* or, in this



The position of Poreč



The centre of Poreč situated on the peninsula



Panorama of Poreč



case, the cardinal or the main street. In the Latin language, *decumanus* or *decimanus* means *the tenth*. The name *Decumana* comes from the fact that the tenth road (Latin: *Via Decumana*) separated the tenth cohort from the ninth one. The most significant monument in Poreč is the Euphrasy's Basilica that has been included into the UNESCO's World Heritage List since 1997. The marvellous mosaics that can be found in

the Basilica date back to the sixth century and are considered amongst the finest examples of the Byzantine art.

The Spring Meeting precedent to the 14<sup>th</sup> Danubia-Adria Symposium took place in Stubičke Toplice. Stubičke Toplice is a spa situated north of Zagreb in which the first Danubia-Adria Symposium was held.



*The Spring Meeting of the Scientific Committee convened in Stubičke Toplice in May 1997*

### The Spring Meeting of the Scientific Committee convened in Stubičke Toplice in May 1997



*Diamond (Diamant) Hotel and the registration desk*



14<sup>TH</sup> SYMPOSIUM "DANUBIA-ADRIA"  
ON EXPERIMENTAL METHODS  
IN SOLID MECHANICS

**Hotel "DIAMANT"**  
RIVIERA MARKETING  
V. Nazara 9  
HR - 52 440 POREČ  
Croatia

**HOTEL ACCOMMODATION** **HOTEL RESERVATION FORM**

Accommodation at hotel settlement "Diamant" in Poreč. All enquiries and reservations should be addressed directly to hotel "Diamant", Poreč before September 1 1997.  
"Diamant" hotel - within 15 minutes walking distance from the center of Poreč, placed 1.5 km on the south side of the city.

NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
I request the reservation of  single  double room

Arrival date: \_\_\_\_\_ Departure date: \_\_\_\_\_

Please send before September 1, 1997

☎: ++385 52 453 083  
FAX: ++385 52 451 331

URL: <http://www.diaa.com>  
E-mail: [slupe.bogic@riviera-holding.hr](mailto:slupe.bogic@riviera-holding.hr)



The Scientific Committee in session

Final Announcement  
(<http://newton.fsb.hr/danubia.htm>)

**14<sup>TH</sup> SYMPOSIUM  
"DANUBIA-ADRIA"**  
ON EXPERIMENTAL METHODS  
IN SOLID MECHANICS

October 2 - 4, 1997  
Poreč - Croatia

Organized by:  
Croatian Society of Mechanics (HDM)

Co-organized by:  
Austrian Society of Experimental Strain Analysis (ASESA)  
Czech Society of Mechanics (CSM)  
Hungarian Scientific Society of Mechanical Engineers (GTE)  
Italian Association for Stress Analysis (AIAS)

**Scientific and Review Committee**

Austria:	J. Affenzeller (Graz) R. Beer (Vienna)
Croatia:	I. Alfirević (Zagreb) S. Jecić (Zagreb)
Czech Republic:	S. Holý (Prague) J. Visner (Plzeň)
Hungary:	L. Borbás (Budapest) F. Thamm (Budapest)
Italy:	A. Fredi (Bologna) F. Di Marino (Trieste)
Slovakia:	J. Brilla (Bratislava) M. Držik (Bratislava)

**Scope**

The purpose of the international Symposium is to provide a forum for engineers, scientists and industrial experts of the Danubian-Adriatic region and of the neighboring countries to present and discuss the current status and the impact of modern technology and development in the field of experimental methods in solid mechanics.

The conference will be concerned with recent research and development in the field of experimental and hybrid methods in solid mechanics. Primary attention will be given to industrial application of new methods and techniques, including service life estimation of structures and machine parts.

**Presentations**

The official language of the Conference is English. Each author has 18 minutes for oral presentation including discussion. VHS video TV system, slide (50 x 50 mm) and overhead projectors will be available.

**14<sup>TH</sup> SYMPOSIUM "DANUBIA-ADRIA"**  
ON  
EXPERIMENTAL METHODS IN SOLID MECHANICS

**EXTENDED SUMMARIES**

October 2 - 4, 1997  
POREČ - Croatia

The First Announcement and Symposium Proceedings





*Opening of the Symposium*

During the Symposium, a visit to the Basilica Euphrasiana was organised. On the occasion, the Symposium participants attended a classical music concert. The concert was given by the COLLEGIUM MUSICUM FLUMINENSE from Rijeka. The technical visit to Uljanik

Shipyard in Pula was organized as well. The participants had also the opportunity to visit the city centre and the very well preserved Roman amphitheatre locally known as *the Arena*.

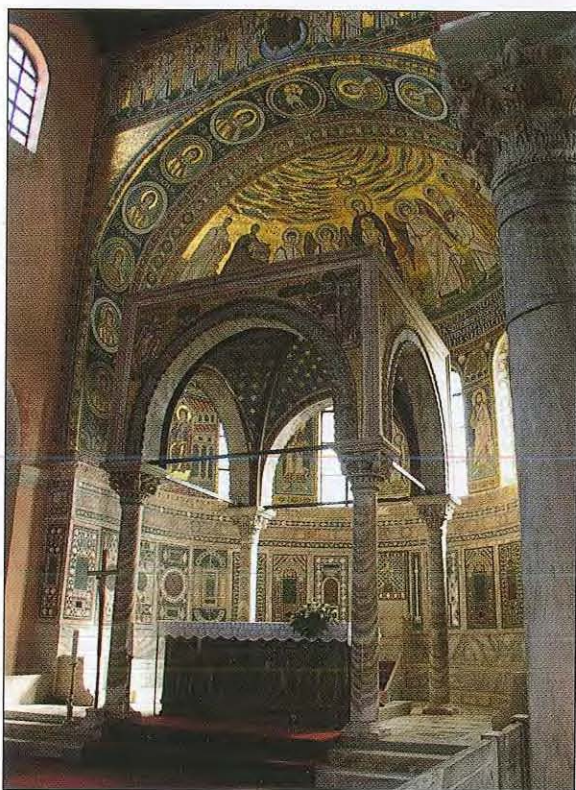
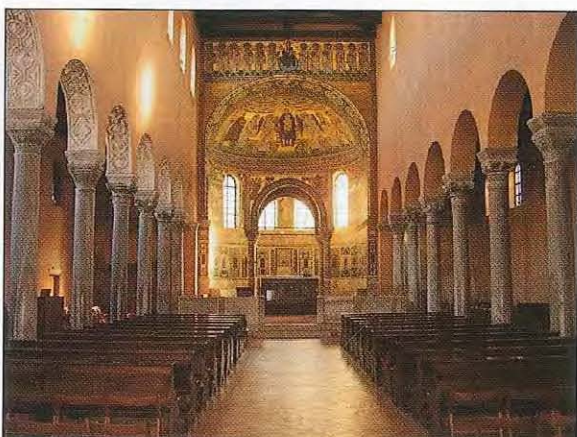


*Aerial view on Uljanik Shipyard and the Arena*



*Symposium participants at Uljanik Shipyard*





*Basilica Euphrasiana*



*Symposium dinner*

**ŽARODNO SVEUČILIŠTE POREČ**

COLLEGIUM MUSICUM FLUMINENSE, Rijeka

Đeni Trdić, flauta - Tea Grubišić-Mihalčić, violina  
Branimir Rizoniko, oboa - David Stefanutti, violončelo  
Valter Vejak, kontrabas - Roberto Haller, clavicembalo

**J. S. BACH:** Trio sonata u c-molu za poprečnu flautu, violinu i basso continuo BWV 1079 iz "Musikalisches Opfer"  
Largo  
Allegro  
Andante  
Allegro

**G. F. HÄNDEL:** Trio sonata u B-duru za oboju, flautu i basso continuo  
Adagio  
Allegro-Largo  
Allegro

**G. Ph. TELEMANN:** Kvartet u G-duru za flautu, oboju, violinu i basso continuo  
Allegro  
Grave  
Allegro

**A. VIVALDI:** Kamorni koncert u F-duru za flautu, oboju, violinu, violončelo i basso continuo  
Allegro  
Largo  
Allegro

**L. ŠORKOČEVIĆ:** 6. simfonija u D-duru (revizija: S. Šulek, obrada: D. Stefanutti)  
Allegro  
Andante  
Allegro

EUFRAZIJEVA BAZILIKA / BASILICA EUFRASIANA  
Poreč, 2. X. 1997. u 21 sat / at p.m.

*Program of the concert given under the roof of Basilica Euphrasiana*



*The Scientific and the Organizing Committee of the Danubia-Adria Symposium, Poreč, October 4, 1997*





*Symposium dinner*



*Voja Jecić, Emilija Alfrević, Professor Stjepan Jecić and Jasminka Biondić  
Visit to the apartment of Professor Jecić in Červar, Poreč*

Country	Number of papers
Austria	7
Croatia	15
the Czech Republic	12
Hungary	3
Italy	6
Slovakia	8
Bosnia and Herzegovina	1
Estonia	1
Germany	5
Japan	1
Poland	5
Romania	12
Slovenia	6
Switzerland	1
UK	1
USA	1
<b>Total</b>	<b>85</b>

A hundred and fifty six authors and co-authors from 17 countries submitted a total of 85 papers. On top of the countries listed above, one co-author came from France.



## THE FIFTEENTH DANUBIA-ADRIA SYMPOSIUM

Bertinoro, Italy, 1998



Bertinoro is a small town located on Monte Ceseo and partially on the nearby Monte Maggiore Hill in the Italian province Emilia Romagna. It lies halfway between Forli and Cesena, a few kilometres away from the Via Emilia road and 20 km away from the Adriatic Sea. Bertinoro is a well preserved medieval town overlooked by the fortress situated on the top of the hill. According to the local legend, its name stems from the exclamation of Galla Placidia, the daughter of the Emperor Theodosius. When visiting the settlement, she was offered an excellent wine in a clay cup. She was delighted by the extraordinary taste of the wine and exclaimed: *Non di così rozzo calice sei degno, o vino, ma di **berti in oro***, that

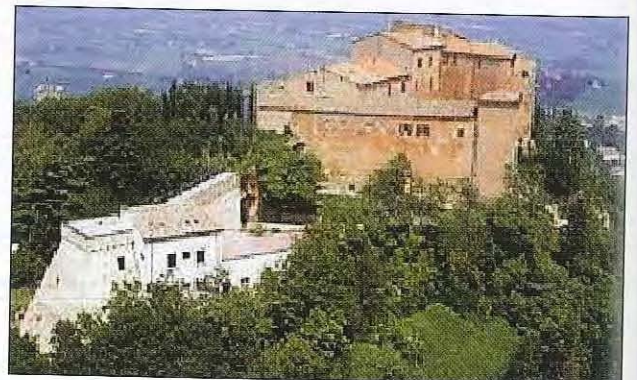
is to say, *This cup is too crude for such a wine, it deserves to be drunk from a golden cup*. The area around Monte Ceseo was inhabited already in Roman times. During barbaric invasions on Italy in the 5<sup>th</sup> century, the settlement was moved on the top of Cesubeum Hill and fortified. It later became known as the *Castrum Cesubeum*. Since the reign of the Holy Roman Emperor Otton III, it had been called *Castrum Brittinorum*. The *Castrum* was very well fortified by an impressive fortress surrounded by battlements. In 1177, Bertinoro hosted the Emperor Frederick Barbarossa and his court. Interesting sights of Bertinoro are the following: La Colonna delle Anella (the Column of the Ring, also called the Column of Hospitality) dating back to the 13<sup>th</sup> century, the Town Hall erected in 1306, and the baroque Cathedral of St. Catherine of Alexandria.



*Bertinoro panorama*



*Bertinoro on Monte Ceseo and Monte Maggiore in background*



*The fortress on the top of Monte Ceseo*







*Bertinoro Spring Meeting*



FIRST ANNOUNCEMENT AND CALL FOR PAPERS

**15th SYMPOSIUM  
"DANUBIA-ADRIA"**  
*on experimental methods  
in solid mechanics*

and  
**IMEKO TC-15 Course**  
**September 30, - October 3, 1998**  
*Bertinoro, ITALY*

*Organized by:*  
DIEM: Department of Mechanical Engineering of Bologna University  
SERINAR Forli - Cesena S.p.A.  
IMEKO - Technical Committee 15 (TC 15)

*Co-organized by:*  
Austrian Society of Experimental Strain Analysis (ASESA)  
Croatian Society of Mechanics (HDM)  
Czech Society of Mechanics (CSM)  
Hungarian Scientific Society of Mechanical Engineers (GTE)  
Italian Association for Stress Analysis (AIAS)  
Slovak Society of Mechanics (SSM)

*in co-operation with associated members:*  
Committee of Mechanics of Polish Academy of Sciences (KMPAN)  
Romanian Association for Stress Analysis (ARTENS)

**Organizing Committee**

Austria:	J. Affenzeller R. Beer	(Graz) (Vienna)
Croatia:	I. Alfrevic S. Jecic	(Zagreb) (Zagreb)
Czech Republic:	S. Holy J. Visner	(Prague) (Plzen)
Hungary:	L. Borbás F. Thamm	(Budapest) (Budapest)
Italy:	A. Freddi F. Di Marino	(Bologna) (Trieste)
Slovakia:	J. Brilla J. Bencat	(Brašlavica) (Zilina)



**Scope**

The purpose of the international Symposium is to provide a forum for engineers, scientist and industrial experts of the Danubian-Adriatic region and of the neighboring countries to present and discuss the current status and the impact of modern technology and development in the field of experimental methods in solid mechanics.

The conference will be concerned with recent research and development in the field of experimental and hybrid methods in solid mechanics. Primary attention will be given to industrial application of new methods and techniques, including service life estimation of structures and machine parts.

**Presentations**

The official language of the Conference is English. Each author has 20 minutes for oral presentation including discussion. VHS video TV system, slide (50x50 mm) and overhead projectors will be available. For poster presentation, authors are requested to bring text and figures of their contribution on cardboard about 1100 mm wide and 1600 mm high. Poster presentations are equally estimated from the

**15<sup>TH</sup> SYMPOSIUM "DANUBIA-ADRIA"**

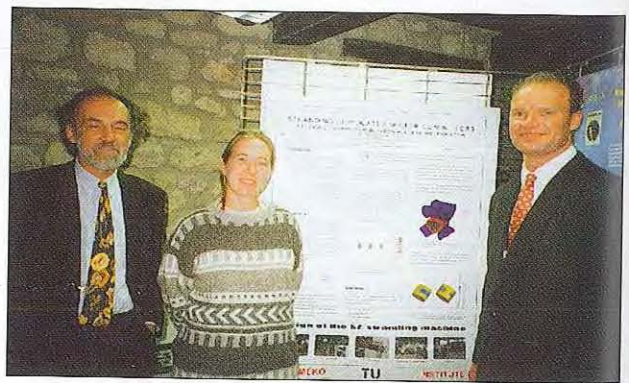
ON  
EXPERIMENTAL METHODS IN SOLID MECHANICS

**EXTENDED SUMMARIES**

**IMEKO TC 15 COURSE on:**  
Experimental Mechanics for Quality and Reliability  
Improvement of Technical Systems

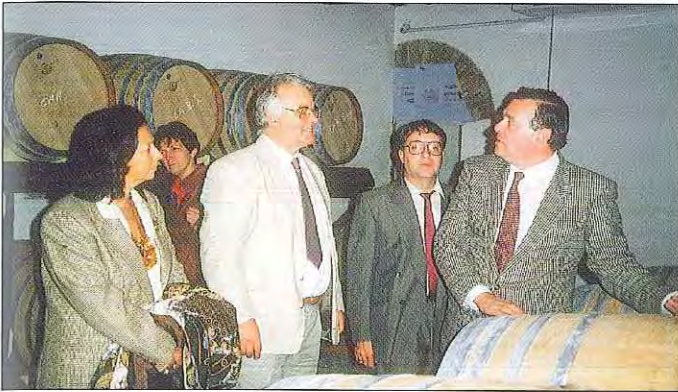
**September 30 - October 3 1998**  
**Bertinoro, ITALY**

The First Announcement and Symposium Proceedings



The cake baked to celebrate the 15<sup>th</sup> Symposium





Visit to a vine cellar

Bertinoro, September 30 - October 3 1998

*15<sup>th</sup> Symposium Danubia - Adria**"Homage to Europe"*

*Maria Vittoria Tonietti* soprano  
*Carlo Mazzoli* pianoforte

**Ferruccio Busoni** (1866-1924) Ich sah die Trane  
 (da Zwei Hebraische Melodien von Lord Byron Op. 15)  
 Die Bekehrte (Goethe)

**Franz Schubert** (1797-1828) Frühlingsglaube Op. 20 n. 2 (Umland)  
 Die Forelle Op. 32 (Schubart)

**Ferenc Liszt** (1811-1886) Wanderers Nachtlid (Goethe)

**Luciano Simoni** (1932) Homesick Song  
 per pianoforte

**Hugo Wolf** (1860-1903) Mignon: Kennst du das Land  
 (dai Goethe Lieder)

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**Sergej Rachmaninov** (1873-1943) Ditjā (Fanciulla) Op.8 n.2 (A. Pleszczewjew)  
 Prochodit vsiō (Tutto svanisce) Op. 26 n.15 (D. Rathaus)  
 Nje poj krasavitza (Nou cantare, bella) Op. 4 n.4 (A. Puškin)

**Pyotr Il.Tchaikovsky** (1840-1893) Skagi, a com v teni vetvei (Di', di cosa all'ombra dei rami)  
 Op. 57 n. 1 (Sollogoub)

**Modest P. Musorgskij** (1839-81) Dietskaja (La camera dei bambini)  
 (testi di M. Musorgskij)  
 - Con la tjanja  
 - Con la bambola  
 - Sul cavallino

**Luciano Berio** (1925) Quattro Canzoni popolari (1946-47)  
 - Dolce cominciamento (Anonimo siciliano XIV sec.)  
 - La donna ideale (Anonimo genovese)  
 - Aveudo gran disio (Jacopo da Lentini)  
 - Ballo (Anonimo siciliano)

Country	Number of papers
Austria	8
Croatia	12
the Czech Republic	11
Germany	4
Hungary	6
Italy	21
Poland	9
Romania	27
Slovakia	7
Slovenia	2
Egypt	1
Portugal	2
Switzerland	1
<b>Total</b>	<b>111</b>

A total of 111 papers were submitted by 220 authors. The authors came from 15 countries listed in the Table, as well as from Japan and San Marino.



## THE SIXTEENTH DANUBIA-ADRIA SYMPOSIUM

Cluj-Napoca, Romania, 1999



Cluj-Napoca is the historic capital of Transylvania, situated approximately 320 km northwest of Bucharest. Its German name is Klausenburg, Hungarian Kolozsvár, and Serbian & Croatian Kluž. It is the second most populous city in Romania, with approximately 310,000 inhabitants. The Dacian village of Napuca was mentioned in Ptolemy's writings. The Roman Emperor Trajan conquered Dacia between 101 and 106 AD. Trajan's successor, the Emperor Hadrian, granted that Roman settlement a municipal rank and named it *Municipium Aelium Hadrianum Napocenses*. In the second century, the city gained a colonial

status and was known under the name *Colonia Aurelia Napoca*. Under the pressure of migratory tribes, the Roman Emperor Aurelian retreated from Dacia in 271.

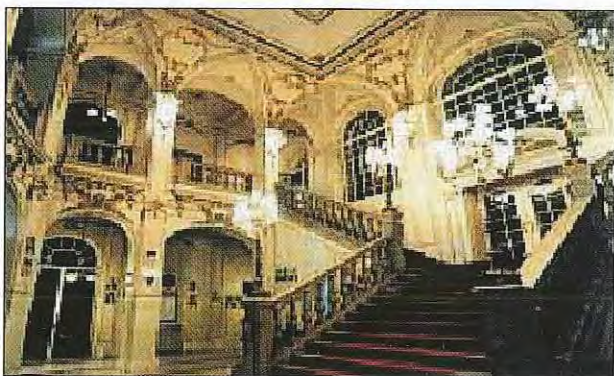
The first written mention of the city's current name dates back to 1213, when the city was known under the Latin name *Castrum Clus*. In Latin, *clus* means *closed* and refers to the hills that surround the city. The modern City of Cluj was founded by German settlers as Klausenburg in the 13<sup>th</sup> century. The name Napoca was added in 1974 to emphasize Dacian-Roman continuity. The Hungarian king Matthias Corvinus was born in Cluj. János Bolyai (1802-1860), the Hungarian mathematician and one of the founders of non-Euclidean geometry, was also born in Cluj. In 1906, Viennese theatre



View on the city



St. Michael Church



National Theatre interior



The Babes-Bolyai University