



4<sup>th</sup> Conference on Elementary Processes  
in Atomic Systems  
Cluj-Napoca, Romania, June 18-20, 2008

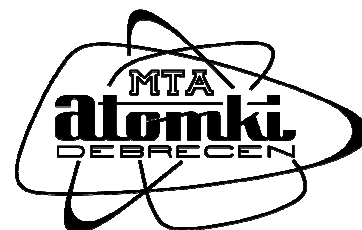
## *Second Announcement*

### Organizers:

**Babeş-Bolyai University  
Cluj-Napoca, Romania**



**Institute of Nuclear  
Research of the Hungarian  
Academy of Sciences  
(ATOMKI)  
Debrecen, Hungary**



Honorary chairman:  
Prof. Dénes Berényi, ATOMKI, Debrecen, Hungary

Chairman:  
Prof. Ladislau Nagy, Babeş-Bolyai University, Cluj-Napoca, Romania

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## Dear colleagues,

We cordially invite you to participate in the 4<sup>th</sup> Conference on Elementary Processes in Atomic Systems (CEPAS) to be held in June 18-20, 2008 in Cluj-Napoca, Romania.

The conference will gather scientists working in the field of atomic physics and will focus mainly on the fundamental processes induced in atoms and molecules by interactions with charged particles and electromagnetic fields.

We will be delighted to welcome all of you for an interesting scientific experience and hope that the conference will provide a stimulating environment for many interesting discussions and beginning collaborations.

The Conference is organized by the Babeş-Bolyai University from Cluj-Napoca, Romania, in collaboration with the Institute of Nuclear Research of the Hungarian Academy of Sciences (ATOMKI), Debrecen, Hungary.

### Organizing committee

Dénes Berényi, ATOMKI, Debrecen, Hungary - honorary chairman  
Ladislau Nagy, Babeş-Bolyai University, Cluj-Napoca, Romania – chairman  
Vasile Chiş, Babeş-Bolyai University, Cluj-Napoca, Romania – secretary  
Onuc Cozar, Babeş-Bolyai University, Cluj-Napoca, Romania  
Titus Beu, Babeş-Bolyai University, Cluj-Napoca, Romania  
Simion Aştilean, Babeş-Bolyai University, Cluj-Napoca, Romania  
Leontin David, Babeş-Bolyai University, Cluj-Napoca, Romania  
Sándor Ricz, ATOMKI, Debrecen, Hungary  
Károly Tókési, ATOMKI, Debrecen, Hungary



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## GENERAL INFORMATION

### Scope

The Conference on Elementary Processes in Atomic Systems (CEPAS) is held every three years. The conference focuses on all aspects of processes and phenomena stimulated by interactions of electrons, positrons, ions, atoms, molecules, photons and other constituents of matter with gaseous, liquid, and condensed matter at low and intermediate energy. The scientific program of the conference will include invited review talks and progress reports. The contributed papers will be presented during poster sessions but some will be selected for oral presentations as hot topics.

The conference proceedings will be published as a special issue of Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms.

### Date and venue

The 4-th Conference on Elementary Processes in Atomic Systems (CEPAS 2008) will be held between June 18 (Wednesday) and 20 (Friday), 2008 in Cluj-Napoca, Romania and it will be hosted by the [Faculty of Physics, Babeş-Bolyai University](#).

The conference venue will be the central building of the Babeş-Bolyai University, located in the center of Cluj-Napoca (str. Kogalniceanu nr. 1). The conference language will be English.



### City

Settled along the Someş river, Cluj-Napoca (Kolozsvár, Klausenburg) city is one of the most important academic, cultural and industrial centers in Romania. Considered to be the historic capital of Transylvania, the city is located in northwestern part of Romania and it is one of the most visited cities in the country. An album gallery of the host city can be visited at:

<http://www.primariaclujnapoca.ro/ClujNapocaAlbum1/index.html>.

The city spreads circle-wise from St. Michael's Church – built in 14th century – named after Michael the Archangel, the patron saint of Cluj-Napoca. The city is today one of the most important academic, cultural, industrial and business centers in Romania. Students count more than a third of the town's population. Among others, it hosts the



largest university in the country, Babeş-Bolyai University with more than 54000 students.

Many hotels and restaurants as well as museums, historical or archaeological monuments, galleries, botanical garden, shopping centers, banks or exchange offices are within walking distances from the conference site.

The climate in Cluj-Napoca is relaxing and refreshing due to a relatively constant temperature (winter average -1.9 °C, summer average: 18.7 °C). During June, the weather is pleasant with the ambient temperature varying normally between 15-25°C.

More information about Cluj-Napoca and a digital map of the city can be found here: [www.cluj4all.com/navigator/](http://www.cluj4all.com/navigator/)



## Contact address

### Dr. Vasile Chiş (Conference Secretary)

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## DEADLINES

Abstract submission	March 15
Acceptance of the submitted abstracts	March 31
Early fee payment and registration	May 1
Hotel reservation	May 20
Final program	May 20
Full text contribution submission	June 1

## REGISTRATION

### Online registration

Please use the online registration form through the conference website, section "Registration". (<http://www.phys.ubbcluj.ro/cepas/registration.php>)

You have to remember, that you can register only after paying the registration fee. You will need to upload a copy of the Bank Transfer Payment at registration.

### Registration fees

All participants, including invited speakers, are required to register. Registration fee includes:

- participation in the scientific program of CEPAS 2008
- conference materials including the Conference Program and Book of Abstracts
- refreshments during the breaks, welcome party, conference dinner and concert
- conference proceedings published in a special issue of NIMB (only for those paying the full registration fee)

Accompanying persons' registration fee covers the welcome party, conference dinner and concert.

Fees	Before May, 1 <sup>st</sup>	After May, 1 <sup>st</sup>
Members of European Physical Society or Members of National Physical Societies	200EUR	230EUR
Non-members	230EUR	260EUR
Students	120EUR	150EUR
Accompanying persons	60EUR	60EUR

Anyone enrolled in a full-time program of study is eligible for the student rate. The registration form must be accompanied by a letter from the participant's supervisor or Head of School confirming this status.

### **Payment details**

All fees should be paid in advance in EUR (foreign participants) or in lei (Romanian participants).

### **Bank Transfer**

Bank transfer must be payable to Conference Office/CEPAS. All charges must be covered.

### **Account details**

#### *For foreign participants*

Account Holder: Babes-Bolyai University  
Bank name: BCR Cluj-Napoca  
Bank address: G. Baritiu 10-12  
Account number:  
RO16RNCB0106026604700008  
SWIFT code: RNCBROBU  
Reference: CEPAS 2008 - Physics

#### *For Romanian participants*

Titular de cont: Universitatea Babeş-Bolyai  
Trezoreria Cluj-Napoca  
Numar cont: RO76TREZ216504601X007224  
Cod fiscal UBB: 4305849 pentru transfer bancar intern - plati in lei  
Specificatie: Taxa participare CEPAS 2008 - Facultatea de Fizica

### **Credit Cards**

We are very sorry for not accepting credit cards.

### **Support policy**

There will be limited funds available to support active participants from less-favored regions and students presenting an invited or contributed paper. The deadline for support applications is March 15. Requests should be submitted via e-mail to the Conference Chair. Applicants will be notified about the support decision by April 15. Support is coming from the European Physical Society.

### **On-site registration and Information Desk**

The registration desk will be open on Tuesday, June 18 from 16:00 to 20:00 and during the conference from 09:00 to 18:00.

### **Official invitation**

An official letter of invitation to attend the CEPAS 2008 Conference will be sent upon request to those participants with an accepted abstract, requiring it for visa application or other purposes. Please note that such an invitation letter does not imply any obligation, financial or otherwise, by CEPAS.

### **Certificate of attendance**

A certificate of attendance can be collected at the registration desk.

### **Internet connections**

All the participants in CEPAS will have access to Internet from a computer network near the Conference room.

## **SCIENTIFIC PROGRAM**

The scientific program of the Conference will include invited talks and oral and poster presentations.

## Invited talks

Friedrich Aumayr	Highly charged ion-induced nanostructures on surfaces
Udo Buck	The solvated electron in recent cluster experiments
Joachim Burgdorfer	Atomic dynamics on the attosecond scale: photons and charged particles
Radu Campeanu	Positron impact ionization of atoms and molecules
Juan Fiol	Detailed description of collision dynamics in atomic ionization processes
Jean-Yves Chesnel	Fast oscillating structures in electron spectra following slow $\text{He}^{q+} + \text{He}$ collisions: Search for electron interferences
Francois Fremont	Young interferences using a single electron source and an independent atomic-size two center interferometer
Mihai Gavrilă	Atomic stabilization in superintense LASER fields
Arnab Ghosh	Cold Hydrogen-Hydrogen Collision and Close Coupling Model
Fumihiko Koike	Theoretical study of post-collision interactions in electron and photon impact ionization of atoms
Helge Knudsen	Fundamental collision processes involving antiprotons
Azzedine Lahmam-Bennanni	Complete experiments for ionization of small atoms and molecules
Gaetana Laricchia	Positron and positronium collisions
Fernando Martin	The role of nuclear dynamics in $\text{H}_2$ ionization and dissociation by synchrotron radiation and laser pulses
Jason Martinez	Investigation of (e, 2e) Collisions for Threshold Energies
Robert Moshhammer	Atomic and molecular fragmentation dynamics in intense laser fields
Oksana Plekan	Photoemission spectroscopy of DNA base tautomers
Kevin Prince	Inner shell spectroscopy and the shapes of biomolecules
Stefan Schippers	Relativistic, QED and nuclear effects in highly charged ions revealed by resonant electron-ion recombination in storage rings
Michael Schulz	Kinematically complete experiments in atomic collisions
Nikolaus Stolterfoht	Guiding of highly charged ions through nanocapillaries in insulating PET polymers
John Tanis	Interferences in coherent electron emission from diatomic molecules
Joachim Ullrich	Atoms and molecules in extreme electromagnetic fields
Sandor Varro	Attosecond dynamics of matter in high-intensity LASER fields
Agnes Vibok	Jahn-Teller and Renner-Teller effects in molecular systems
James Walters	Atomic Collisions Involving Antimatter
Colm Whelan	Fragmentation process in atomic collisions
Yasunori Yamazaki	Interaction of charged particles with insulators
Ding Zejun	Monte Carlo simulation of electron interaction with solids and surfaces
Matjaz Zitnik	High resolution resonant Raman X-ray scattering

### **SPARC session**

CEPAS will also host a special SPARC session, as the last session of the conference on Friday afternoon.

The SPARC - [Stored Particles Atomic physics Research Collaboration](#) - has been formed within the project FAIR - [Facility for Antiproton and Ion Research](#) – to be built at GSI, Darmstadt - Germany. The aim of this collaboration is to bring together expertise in atomic physics with highly charged ions at the international level and to address a broad variety of atomic physics experiments from fundamental physics to applications in Quantum Electrodynamics, Strong Fields and Ion-Matter Interactions.

The particular session will be organized by the SPARC Collaboration Board. Presentations will focus on the physics and the planned future atomic physics experiments at the FAIR storage ring facilities.

### **Poster sessions**

The poster session will take place in the second floor hall. There will be a total of 2 poster sessions in the afternoons.

### **Final conference program**

A detailed conference program and schedule will be available by May 20 on the conference website.

## **PREPARATION OF CONTRIBUTIONS**

### **Abstract submission**

Participants are invited to submit abstracts fitting the conference topics. Each abstract must be prepared in English, following the proposed abstract template ([abstract.pdf](#), [abstract.tex](#)) and uploaded using the [Abstract upload form](#), preferably as a pdf document. Please do not include the page number in your abstract!

The deadline for abstract submission is March 15. All conference contribution, including invited and poster presentations, have to submit an abstract before the deadline.

Authors of the accepted abstracts will be notified by e-mail by March 31.

### **Poster presentation**

All accepted posters will be presented in afternoon Poster Sessions. One board with the dimensions 90cm x 120cm will be allocated to each poster. Only accepted posters can be presented, and one of the authors has to be registered to the conference. Registered posters will have an assigned code indicating the day of the presentation and the board at which it should be displayed. The posters may be displayed in the morning of the presentation day, and removed by the author in the following morning at latest.

### **Conference proceedings**

Papers submitted to the conference proceedings will be published as a special issue of the Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms. All articles included in the volume will be refereed. Only papers presented at the conference by one of their authors will be included in the proceedings. For further information on the preparation of manuscripts, please see the journal's webpage:

[http://www.elsevier.com/wps/find/journaldescription.cws\\_home/505674/description#description](http://www.elsevier.com/wps/find/journaldescription.cws_home/505674/description#description)

Authors will be asked to submit their paper electronically before June 1, 2008. Sorry, there will be no deadline extension as we plan to terminate the refereeing process during the conference. Participants who submitted electronically a paper for the proceedings can collect their manuscript and the referee's recommendations at the editorial office during the conference.

The total length of each paper shall be 4 printed journal pages (6 for invited speakers). Only black and white photographs and illustrations will be accepted for publication in the proceedings.

## TRAVEL AND TRANSPORTATION

Cluj Napoca can be reached by plane, train, bus or car.

### By plane

Cluj-Napoca International Airport (see [www.airportcluj.ro/en/hpg.html](http://www.airportcluj.ro/en/hpg.html) ) offers connections with several major cities of Europe.

In some cases could be convenient to come by plane to Cluj-Napoca via Bucharest (see <http://www.otp-airport.ro/www/index.html> ) or via Budapest (see <http://www.bud.hu/english> )

### By train

Cluj-Napoca has rail connections with every major city in Romania and the rest of Europe. The main railway station is placed near the center of Cluj-Napoca. (for more information see: [www.raileurope.com](http://www.raileurope.com) and <http://www.mersultrenurilorcfr.ro>)

### Visas

Visas are not required for citizens of the European Union. For non-EU citizens more information can be obtained from the Romanian Embassy or Consulate in your country. If you need a visa, a personal invitation letter may be necessary, which you can ask for from the Organizing Committee.

See more at: <http://www.mae.ro/index.php?unde=doc&id=7201&idlnk=3&cat=5>

## HOTELS AND ACCOMMODATION

A limited number of places have been booked at the Babeş-Bolyai University hotels **Universitas** and **Juventus**, where the prices are:

Universitas (double rooms)		
70.00 RON/bed/day	double occupancy	
90.00 RON/day	single occupancy	
Universitas (single room)		
120 RON/day		
Juventus (double rooms)		
60.00 RON/bed/day	double occupancy	
80.00 RON/day	single occupancy	

The prices do not include breakfast (10 RON/day)



Hotel Universitas, Pandurilor 7 Cluj-Napoca

Also, a number of rooms have been booked at the **Agape Hotel\*\*\*\*** ([www.hotelagape.ro](http://www.hotelagape.ro)), situated within a walking distance from the conference site. The prices (including breakfast) are:

double room:	251 RON
single room:	220 RON
apartment:	339 RON

These are reduced prices and apply only for CEPAS participants.

Accommodation should be preferably paid on site.

## SOCIAL PROGRAM

- Welcome party: Tuesday June 17, 7.00 p.m.
- Concert: Thursday June 19, 7.00 p.m.  
Flauto Dolce Ensemble ([www.flautodolce.ro](http://www.flautodolce.ro))  
Artistic director: Zoltan Majo  
Special guest: Mihaela Maxim (soprano)  
Venue: Art Museum (Banffy Palace), P-ta. Unirii, nr.30 ( [www.macluj.ro](http://www.macluj.ro) )
- Conference Dinner: Friday June 20, 7.00 p.m.
- Post conference excursion to Sibiu (European Capital of Culture in 2007), only if there are enough participants  
Saturday June 21



### **Program for accompanying persons**

- Walking tour of Cluj-Napoca
- Visit to the Botanical Garden
- Concert

Detailed information about the social program will be available on the web site by April.

### **SPONSORS**

European Physical Society



Ministry of Education, Research and Youth

