



Second Announcement

BGL-8 International Conference on Non-Euclidean Geometry in Modern Physics and Mathematics
8th Bolyai-Gauss-Lobachevsky Conference, 22–25 May 2012

Uzhgorod, Ukraine

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Scope and Programme

Non-Euclidean Geometry in Modern Physics and Mathematics is a series of biennial conferences initiated by the Bogolyubov Institute for Theoretical Physics, National Academy of Sciences of Ukraine. Its shorthand subtitle is BGL, from the abbreviation of the names of Bolyai, Gauss, Lobachevsky – the founders of the new geometry.

The programme of this conference will include talks on various applications of non-Euclidean geometry in modern physics and mathematics. Among them there will be the recent developments in astroparticle physics, namely the evolution of the early Universe, the problem of the dark matter and possible geometrical interpretations, the brane universe, the possibilities of detecting mini-black holes and higher dimensions in cosmic rays and/or at accelerator (LHC) energies, quantum groups and quantum deformations. All these topics are closely related to the non-Euclidean geometry. The mathematical part of the discussion will include recent applications of non-Euclidean geometry to different topics of modern mathematics – geometry, algebra, dynamical systems, and other fields. The scientific programme will consist of invited plenary lectures and progress reports. The plenary lectures will be of general interest to all participants.

Conference Site

8th Bolyai-Gauss-Lobachevsky Conference, will be held on 22–25 May 2012 in Uzhgorod, Ukraine. The conference venue will be the Institute of Electron Physics, National Academy of Sciences of Ukraine (<http://www.iep.org.ua/>). The plenary lectures will be held in the conference hall of the Institute of Electron Physics (Universytetska Str. 21)

Conference fee:

Registration fee for participants is 250 euro, including participation, the book of program and abstracts, the welcome party, coffee breaks, banquet, and excursion.

Registration fee for accompanying persons is 100 euro, including welcome party, coffee breaks, banquet, and excursion.

Transportation:

Uzhgorod can be reached by train, car or air. Daily direct **flights from Kyiv** are available. There are direct **trains** connecting Uzhgorod with Kyiv, Lviv, Kharkiv, Odesa, and Moscow. At the outskirts of Uzhgorod there is a checkpoint on the frontier with Slovakia. Uzhgorod can be easily reached from the Slovak city of Košice either by a direct bus or with a change in Michalovce. The checkpoint on the frontier with Hungary **Chop (Csap)**, having train connection with Budapest. Chop is 25 km away from Uzhgorod. The Institute of Electron Physics, home of the conference, is located at the university area, close to the airport and not far from the Slovak border. It can be reached from any point of Uzhgorod by bus (2 UAH, about 20 eurocents) or taxi for around 20 UAH (2 EUR).

There are no limitations in changing money in Ukraine, the present exchange rate being about 8 UAH for 1 USD and 10.5 UAH for 1 EUR.

Homepage: <http://www.bgl.iep.org.ua/>

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Deadlines

*Distribution of the Second Announcement: **January 2012***

*Deadline for Abstracts submission: **14 April 2012***

*Deadline for registration: **16 May 2012***

City

History and Present: Uzhgorod is a compact city of about 120000 inhabitants, the capital of **Transcarpathia** (Subcarpathia when viewed from the West). The region is located on the western slope of the East Carpathian Mountains, meeting the Great Danube (Hungarian) plane. On the west it borders Poland, Slovakia, Hungary and Romania. Protected by the Carpathian Mountains, it has mild climate, favouring wine production. In May one can enjoy the flourishing of sakura and magnolia trees.

Uzhgorod is a university city, a considerable part of its inhabitants being involved in numerous secondary and high schools and research centers, among which the Uzhgorod National University, the Transcarpathian State University and the Institute of Electron Physics (Ukrainian National Academy of Sciences) are the biggest ones. Uzhgorod (Ungva'r in Hungarian) is a multinational and multicultural city with its rich history that includes over 1000 years of adherence to Hungary and years (1920–1939) of Czechoslovak dominance. In 1939–1944 Transcarpathia returns to Hungary, later, in 1945 becoming part of the Soviet Union, and of Ukraine, after 1991. Close links with the Slavonic, Hungarian and German cultures created a unique milieu in the town and in the region, with castles, museums, theatres and numerous cafés, attracting visitors both by their hospitality and superb coffee. Among the tourist sights, the local **Boksay Art Museum**, exhibiting and storing pictures of the unique and world-wide esteemed Transcarpathian school (Erdélyi, Boksay, Kassay, Koczka, Glück, Manajlo), is worth to visit. Transcarpathia's history is linked also with a number of castles, including that in Uzhgorod (home of a museum) and the famous castle in **Mukachevo (Munkács)**, that played a key role in the Hungarian insurrection of the 18-th century, by **Ferenc Rákóczi II**. Uzhgorod's Mittleeuropisch location and atmosphere ideally fit the BGL spirit.

An excursion to the mountainous part of Transcarpathia with a picnic is scheduled during the Conference.

Accommodation

IMPORTANT: EU, Swiss, Japanese, USA and Canadian citizens do NOT need Ukrainian entry visas.

Some of recommended Uzhgorod hotels:

Hotel Old-Continent: <http://hotel-oldcontinent.com>, **Hotel Uzhgorod:** <http://www.hoteluzhgorod.com>,

Hotel Izumrud I: [http://www.tripadvisor.com/Hotel_Review-g298059-d596511-Reviews-](http://www.tripadvisor.com/Hotel_Review-g298059-d596511-Reviews-Hotel_Izumrud-Uzhgorod.html)

[Hotel_Izumrud-Uzhgorod.html](http://www.tripadvisor.com/Hotel_Review-g298059-d596511-Reviews-Hotel_Izumrud-Uzhgorod.html), **Hotel Olymp:** <http://hotel-olymp.com/>,

Hotel-rancho Golden Hill's: http://eastbooking.com/hotel/Zolotaya_gora

Rules for abstracts

The abstracts should be submitted **not later than March 4, 2012** by e-mail to bg18.2012@gmail.com as attached files.

(See Sample abstracts bellow)

Rules for proceedings

The contributions presented at the conference are planned to be published as articles in the *Uzhhorod University Scientific Herald. Series Physics*. Before the publication the articles will be refereed. The issue is planned to be published in autumn 2012. In accordance to the rules of the journal. The maximal size is 10 pages.

Manuscript Preparation for the Proceedings

Uzhhorod University Scientific Herald *Series Physics publishes original papers which have not been published before. The manuscript should be prepared by Microsoft Word with the following page parameters: paper size A4, margins 2 cm (all sides) without pagination. Times New Roman font size 12, single paragraph interval. The maximal paper size is 10 pages. The paper is organized as follows: authors' initials and names (justified left), affiliations and e-mail (justified left), paper title (capital letters, bold, central justification), keywords (5-6 keywords), text of the paper (two columns of equal size, the gap between the columns 1 cm), references listed in the order of citation (two columns of equal size, the gap between the columns 1 cm). The references in the text are cited in brackets, e.g. [1].

Instructions for preparation of abstracts for BGL-8

second line of title if needed

First Author¹, Second Author², and Third Author²

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This is a sample abstract for BGL-8. The abstracts should be written in English and fit in one A4 page with all margins of 2 cm without page numbers.

The abstract should be submitted in MS Word DOC or PDF format. It is the responsibility of the authors to check that the abstract is correctly formatted and readable.

Use Roman (LaTeX default) or Times New Roman (MS Word) font in the abstract. The font sizes, typefaces and paragraph justification styles are listed in Table 1.

Table 1. Formatting to be used in the abstract.

	Font size	Typeface	Justification
Title	16	Bold	Centre
Authors	14	Bold	Centre
Affiliation	14	<i>Italic</i>	Centre
Body	14	Normal	Fully justified
References	14	Normal	Left

Figures will be shown in colour in electronic versions of the abstracts. Give each figure a separate caption (14 pt) and, like a table caption, it should be concise. The abstract book will be printed in black and white. When including figures, pay attention to the file sizes to avoid producing an oversized final PDF abstract file.

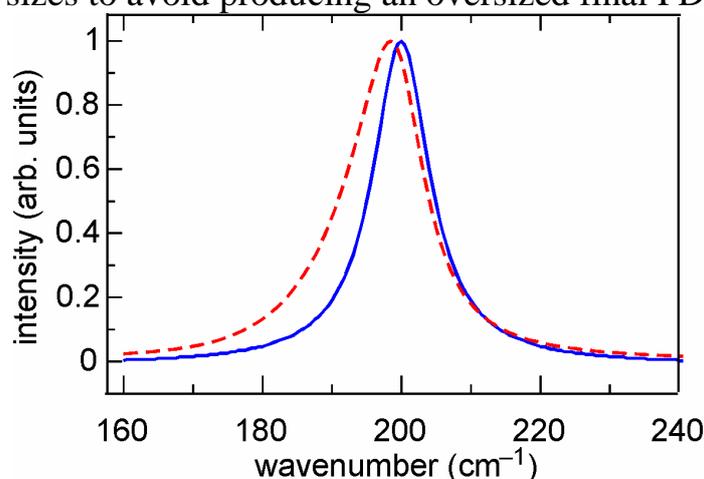


Figure 1. Caption to the figure.

References

[1] A Orel *et al* 2009 J. Phys. Conf. Ser. 194 001001